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EDWARDS'S

BOTANICAL REGISTER:

OR,

ORNAMENTAL FLOWER-GARDEN AND SHRUBBERY:

CONSISTING OF

COLOURED FIGURES OF PLANTS AND SHRUBS,

CULTIVATED IN BRITISH GARDENS;

ACCOMPANIED BY THEIR

History, Best Method of Treatment in Cultivation, Propagation, &c.

EDITED

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NEW SERIES,

COMPLETE IN TEN VOLUMES.

VOL. VII.

MISSOURI
BOTANICAL
GARDEN.

LONDON:

JAMES RIDGWAY AND SONS, PICCADILLY.

MDCCCXLIV.

1

Miss Drake del. Pub. by J. Ridgway. 169 Piccadilly. Jany 1844. J. Barclay sc.

LUPINUS arvensis.

Field Peruvian Lupine.

DIADELPHIA *DECANDRIA.*

Nat. ord. LEGUMINOSÆ. § PAPILIONACEÆ.
LUPINUS. *L.*

L. *arvensis ;* biennis, decumbens, densè pubescens, foliolis 5-9 lanceolatis, stipulis setaceis liberis, racemo subverticillato, bracteis herbaceis subulatis deciduis alabastris subæqualibus, calyce bracteolato, corollâ glabrâ, alis obtusis, legumine hirsuto brevi ancipiti tenui subtetraspermo, seminibus cinereo-nebulosis.
L. arvensis, *Bentham Plant. Hartweg. ined.*

A gay little plant, forming one more addition to the large genus Lupinus. The flowers are rich bright lilac, enlivened by a yellow spot on the white centre of the vexillum. In number the leaflets vary from 5 to 9. The seeds, by which Lupines may be distinguished more accurately than by the ordinary marks employed by Botanists, are oblong, smooth, and mottled with grey of different tints. Fig. 3, represents one of them ; 2, is a ripe pod ; and 1, is the ovary and style.

It is a half hardy biennial, growing from one to two feet high, and flowering a great part of the summer and autumn. Like other Lupines it requires a strong rich soil, and although a half shrubby biennial, is best treated as an annual.

The seeds should be sown about the beginning of March, in pans filled with a loamy soil, and when large enough should be potted, placing three plants in a small pot; afterwards, when the danger of the late spring frosts is over, they may be planted out in the open border. The seeds may also be sown in the open border about the middle of April, but then the

plants flower much later, and are never so fine as when treated as above stated.

It was found growing in corn fields near Loxa, in Peru, by Mr. Hartweg, and flowered in the garden of the Horticultural Society in the course of last autumn.

2

Miss Drake del. Pub. by J. Ridgway 169 Piccadilly Jany 1. 1844 G. Barclay sc.

ANGRÆCUM pellucidum.

Transparent Angrec.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ. § VANDEÆ.
ANGRÆCUM. Thouars.

A. *pellucidum;* acaule, foliis distichis oblongis subundulatis recurvis apice obliquis basi equitantibus, racemis densis nutantibus axillaribus foliis brevioribus, sepalis petalisque lineari-lanceolatis, labello fimbriato cordato-ovato truncato, calcare brevi lanceolato porrecto, caudiculis 2 subulatis, glandulâ communi didymâ.

We lament to see how little justice our artists have been able to do to this beautiful plant, whose flowers are as delicate and transparent as if they were flakes of snow fixed by frost in the very act of melting. Each part of the lip is studded and bordered with little crystalline elevations, and the whole fabric of the blossom is as fragile as thin plates of glass.

It was imported from Sierra Leone by Messrs. Loddiges, with whom it flowered in November 1842. It is number 1572 of their catalogue.

Fig. 1. represents the column and spur of the labellum, the limb of which, spread flat to shew its true form is seen at 2. Fig. 3. represents the pollen-masses with their straps; and 4. is a single pollen-mass seen from behind where the strap fitted on.

We still regret the want of leisure to effect that reformation in the genus, the necessity of which was alluded to at fol. 68 of our volume for 1840. A comparison of the details of this plate and of those of *A. gladiifolium* at the place just quoted, will shew that the genus Angrec, as it now stands, cannot be maintained entire.

W. Herbert del. Pub by J. Ridgway 169 Piccadilly Jan. 1. 1844 G. Barclay sc

CROCI autumnales.

Autumnal Crocuses.

TRIANDRIA *MONOGYNIA.*

Nat. ord. IRIDACEÆ.

CROCUS. *Bot. Reg.* 1843. *fol.* 21.

1. C. *pulchellus;* nudus, cormi tunicâ præcipuâ (i. e. exterioribus obsoletis persistente) membranaceâ durâ annulo ad basim fibris ciliato, perianthio pallidè subviolaceo intus saturatius venoso fauce luteâ pubescente, filam. luteis hispidis, antheris albis. *In forestâ Belgratensi prope Byzantium.* V. 2. *major;* perianthio majore, annulo vix ciliato, in monte Athone. (Fig. 1.)
2. C. *longiflorus;* si mavis, C. *odorus* (v.) *longiflorus;* involucro 1-2-fl. c. t. præc. reticulatâ non cribrosâ inferne parallelo-fibrosâ, spathâ virente, tubo lutescente, perianthio pallidè purpureo fauce saturatè luteâ pubescente. *In Italiâ et Trinacriâ.* Vidi sepalis extus luteo-striatis var. fortuitam. (Fig. 4.)
3. C. *odorus;* si mavis, C. *odorus* (v.) *Melitensis;* tubo et perianthio inferne extus saturatè purpurâ striatis, fauce sublutescente pubescente. *In monte Verdalâ Melitensi. C. longiflori invol. quandoque in foliolum desinit.* (Fig. 5.)
4. C. *Thomasianus;* involucratus, c. tun. præc. reticulatâ non cribrosâ inferne parallelo-fibrosâ, tubo pallido, limbo saturatè violaceo, fauce pallidâ pubescente. *C. sativo affinis, in Italiâ.* (Fig. 6.)
5. C. *Pallasianus;* involucratus c. tun. præc. tenuiter reticulatâ, perianthio pallidè violaceo extus ad basim striato fauce pallidâ pubescente. *C. sativo affinis. Neque perianthium vivum vidi, neque plantam dissecui; icon ex sp. sicco in Tauriâ a cl. Besser lecto est, cum C. Cartwrightiano comparandi gratiâ.* (Fig. 2.)
6. C. *Cartwrightianus;* involucratus, c. tunicis tenuiter reticulatis perianthio albo intus purpurâ venoso, fauce pubescente. *In insulâ Teno., C. Pallasiano affinis.* (Fig. 3.)

De præcedentibus pleniùs consulas Synops. Croc. nobis supra anno 1843. Misc. p. 26. et Syn. Cr. Addenda, &c. p. 82, 83. De C. cancellato in Syn. pro *Tauriâ* lege *monte Tauro;* C. serotini invol. 1-2-fl. est.—*W. H.*

The first of these five autumnal Croci was sent to Spofforth by the kindness of J. Cartwright, Esq., H. M. consul-general at Constantinople. Having seen a dried specimen of the

plant from Roumelia, confounded with C. speciosus in Sir W. J. Hooker's herb. I requested that search might be made for it in the forest of Belgrade, where I thought it likely to grow, and there it was found in flower without any leaf in October. It differs from all known Croci in having *white* anthers and pollen. The filaments are also remarkable, being yellow and hairy. C. longiflorus is a native of Italy and Sicily, and flowers with us in October, or sometimes later, the leaf accompanying the flower, which is very fragrant, of a pale reddish lilac, with the tube yellowish and the throat of very deep yellow. It is closely akin to C. odorus of Mt. Verdala in Malta, whereof the leaves rather precede the flower, and which has the throat very much paler, and the sepals and tube striped with purple. C. Thomasianus has much affinity to C. sativus, and is a native of Italy. C. Cartwrightianus was obtained last summer from the Greek island Tino by J. Cartwright, Esq. and was before unknown. It is evidently akin to C. Pallasianus. C. Pallasianus is found in Tauria, and said to grow also in the Cyclades, but is not sufficiently known and examined. The figure given is from a dry specimen found by Prof. Besser in Tauria, for the sake of comparison with C. Cartwrightianus.

This opportunity may be taken to give some general information concerning Croci. They grow naturally on high land between the Atlantic and the Caspian, north of the Mediterranean, one autumnal species being, however, found on the heights near Tangiers; and a vernal species was said to have been seen on Atlas by Desfontaines, whose confused and evidently erroneous description was taken from plants growing in the Jardin des Plantes, and no Crocus has been yet found by the French in Africa since their occupation of Algiers. C. Pyrenæus (afterwards ill-named nudiflorus by Smith) is found abundantly on the Pyrenees in September; and the kindred Asturicus, smaller, darker, a month later, and bearded, near Gijon and Santander. Whether they meet in Biscay and Navarre is not ascertained. They are distinguished from all others by a stoloniferous bulb producing its offsets at a distance. In the mountain pine-woods of S. Spain, C. serotinus grows, flowering with us in November and December, the leaves beginning to accompany the flowers, and distin-

guished by channelled filaments. C. Salzmannianus of Tangiers, and one very imperfectly known near Lisbon, called Clusianus by Gay, are probably allied to it. All the sorts which are found West of Italy have an involucre enclosing the flower-stalk and lower part of the flower, whence Smith's name for Pyrenæus was peculiarly unhappy, especially as the flower has not only an involucre, but an unusually conspicuous green spathe.

The remaining sorts that belong to the West of Europe are C. versicolor, a native of the neighbourhood of Nice, and probably extending into Savoy, though it is not named in Italian Floras, of which the throat is pale yellow and smooth ; C. insularis (including minimus) of Corsica and Sardinia, white-throated, but forming a link between versicolor and suaveolens of Italy ; and C. vernus, (of which the coats are subreticulate, the throat hairy and never yellow, and of which the principal seats are the Alps and Apennines,) appearing large and purple, at the height of 6,000 feet on M. Pollino in July, and elsewhere in the S. of Italy ; small, white with purple throat on the Splugen, larger and purple or purple-throated white intermixed on the Wengern Alp, 5,300 feet high, piercing the yet unmelted snow on the flat amidst short sour grass as late as June 19 ; elsewhere in Switzerland on Alpine pastures even as high as 5,500 feet, and on Mount Pilate 5,500 feet high, with a longer flower (C. longiflorus, Hegetzchweiler,) in July and August, extending eastward by Cebennes to the Pyrenees, where it is rare, and (if Brotero is correct) passing thence through the N. of Spain to the mountains of Beira and Entre M. y D. ; eastward white and obovate on the Bavarian, more acute and white on the Carinthian, Alps ; and (if Besser's specimen is correct) passing by the N. of Hungary into S. Podolia, which seems to be the most northern seat of the native Croci, for they are not known to cross the left bank of the Danube above Vienna, and are stopped by alluvial lands to the N. of Podolia and of the steppes near Odessa and in the Crimea.

Mons. Gay has named an autumnal Crocus of Majorca, which he described imperfectly, C. Cambessedesianus, allied, as he says, to the vernal Insularis, but perhaps more probably to

the autumnal Crocus of Malta. Dried specimens exhibit two different varieties evidently akin to Versicolor from Dalmatia and the hills near Tifflis, and it is probable that the small dark varieties called Versicolor in our gardens, which have no yellow in the throat, do not spring from the Gallic plant. In Italy versicolor and insularis pass into Imperatonianus and suaveolens, to which they have much affinity; while the fragrant autumnal family of C. odorus v. longiflorus and Melitensis are confined to Italy and Sicily and to Malta. On the mountains near Genoa, and abundant near Varese in Liguria, we find C. medius, a purple autumnal Crocus, insufficiently known, but probably allied to C. odorus.

Near Parma originates the family of the annulate Croci, which is best known by the plant called biflorus, or by English nurserymen Scotch Crocus. It is not ascertained from whence that plant was obtained. It is distinguished from all others by the yellow leaf-sheaths of its sprout, and is stated by Bory St. Vincent to grow round the Gulf of Ægina, but the fact is not distinctly ascertained. The Italian varieties ranking under the name Pusillus have the sheaths white, the external stripes on the straw-colour fewer, the internal colour white or pale blue, and in the Florentine plant (which differs also in its bracte) unstreaked straw-colour without, and pale blue within. It is stated to extend into Corfu, and similar forms appear in dry specimens from Tauria and Tifflis. In the Crimea is found C. Adamicus, a beautiful plant of this family, blue striped, varying towards purple; and, according to a specimen from the steppes near Odessa, (if the bulb and flower sent belong to one plant) to deep purple, which I propose to call variety Iæmesianus, after H. M. Consul at Odessa, Mr. Yeames, to whom I am indebted for the discovery of this plant and C. nivigena. A specimen found by Fridwalski in some part of Roumelia exhibits a small plant of this family (which has a thick membranaceous bulb-coat, and a smooth detached ring at bottom) with a golden flower. C. Thomasianus in Lucania exhibits the western type of the family of C. sativus, the cultivated saffron Crocus, which seems more closely connected with Pallasianus and Cartwrightianus, but of which the native spot in the east is not ascertained. C. Byzantinus is an autumnal Crocus, with

purple sepals, and shorter whitish petals, found in Wallachia and the Bannat, and probably advancing into Roumelia. C. campestris of Pallas, is identical with Fridwalski's C. hybernus from Roumelia. Both it and Byzantinus are imperfectly known, and, not having seen any specimen of the former, I entertain some doubt of their difference. The latter is a very late flower, and was mistaken by Mr. Ker for C. serotinus. Byzantinus is the earliest name.

C. speciosus, the most beautiful autumnal Crocus, appears first and in its best form in Transylvania, and extends into Caucasus, but there is no certainty of its being found S. of the Balkan, or even the Danube; the supposed C. speciosus of Mount Athos, of which I have just received a dry flower and some living bulbs, being a large variety of C. pulchellus of this article found in Belgrade forest near Constantinople, and also on the Asiatic side of the Bosporus. Crocus cancellatus, an early purple autumnal species, with hard and widely reticulated coat-fibres, has been gathered near Nauplia, and of a smaller size on Mount Taurus and in Syria. C. Tournefortianus of Gay, with very smooth coats and an autumnal flower, is said by him to inhabit the Cyclades, but is imperfectly and not otherwise known. A white autumnal Crocus, described by Pohl from Paphos, is supposed by Mons. Gay to be a variety of the same. Crocus reticulatus, the vernal cloth of gold Crocus, first appears with a blueish purple-streaked flower, and is called C. variegatus, near Trieste in Lipiza wood, differing only in colour from the golden-striped of the Crimea. In S. Podolia and near Odessa the streaked white v. albicans appears; and the blue is found also in the Crimea, according to M. von Bieberstein, though probably smaller than in the west. A small reticulate Crocus, differing in the bulb-coats, with a pale lemon and sometimes golden flower, is found on Gargarus; and a specimen of a golden one of larger size, with harder reticulation, was brought by Lady Liston from Constantinople, of which the exact habitation is not known. The extensive family of C. lagenæflorus, golden, creamy, and white, with parallel-fibred coat, appears to begin in Corfu and stretch by the Balkan to Asia Minor, Chios, and some of the neighbouring islands. To this family belongs the florid Crocus luteus of our gardens, of which the exact

native site is not yet ascertained. The autumnal white C. Boryanus of Cephalonia, Modon, and Navarin, appears to differ in little but its season of flowering from lagenæflorus, but I have not yet seen it alive.

The southern limit of the genus runs near lat. 35°, from Tangiers by Malta, Candia, and Cyprus to Aleppo; there it turns northward, following, I believe, the right bank of the Phrat to its source between Erzerum and Trebisond, and from thence it passes between Kurdistan and the Caspian, as far S. as Tabriz, not descending into the plain of the Tigris and Euphrates, and is cut off from the southern shore of the Caspian and from the rest of Persia. Mr. Kotschy found a blue Crocus, (cancellatus) in Syria and near Tabriz, and a white one, probably Boryanus v. Caspicus, near Baalbec and Tabriz. I have lately learned from two quarters that the yellow Crocus follows Mount Lebanon southwards from Aleppo and approaches Damascus on the hills, where it is eaten by the natives, who make a palatable dish of it; but it cannot cross the Euphrates, and the alluvial plain of Damascus. The genus is stopped to the north of the Caspian by the Volga and the salt plains. C. sativus is a cultivated plant in Cashmere, and the Crocus-like plant of Suleimania seems to be a Merendera or Colchicum.

There are yet some vernal races in the Levant; one C. Fleischerianus on the hills near Smyrna, white-streaked with finely interwoven fibres, and seemingly in some degree akin to C. reticulatus albicans; C. Sieberianus (named more happily, but later, nivalis by Bory St. Vincent) on the very summits of Crete and Taygetus, flowering between patches of snow, at the height of above 6,000 feet on the latter in July; C. nivigena, allied to it, on the steppes near Odessa, which have both finely reticulated coats like C. vernus, attached at the base instead of the brow of the bulb, and differing in other respects; and lastly, C. nubigena, from the summit of Gargarus, (with a hard smooth coat, and at the base a ciliated ring, as in C. pulchellus) closely allied to C. Sibthorpianus of Cretan Ida, and seemingly to C. lævigatus of the summit of Milo and Thermia as well as Crete, which has a hard coat, cut at the base into the appearance of scales. As

the summits of Milo and Thermia are of schistous marble, it may be conjectured that those of Crete and Gargarus are similar, from the Croci they produce.

In confirmation of the report concerning the yellow Crocus of the mountains near Damascus, I have long observed the avidity of mice to scratch up and eat C. luteus and lagenæflorus aureus, and the remarkable fact, that all the lagenæflori, when dug up wild, are found five or six inches deep underground as if for protection, and that the mice never touch any other Crocus in the garden. I tried to roast C. luteus, and found it as hard as a stone; boiled for three-quarters of an hour or more, it became a soft pulp, of which the flavour was insufficient, but not unpleasant. On becoming cold it hardened, so that it might be pounded or ground for culinary purposes, and with some seasoning might be palatable, but from its setting hard after being boiled, it would probably be not easily digested. It is a remarkable fact, that although the Croci of different localities are little distinguished from each other by casual observers, they refuse to intermix, and I have failed in every attempt to cross C. vernus (which produces seedlings at Spofforth so abundantly as to be troublesome) with any other Crocus, and I have equally failed with every other species, (unless perhaps in obtaining seed between Versicolor, Imperatonianus, and insularis, which are peculiarly allied) although most, except the sorts long cultivated by offsets, make seed pretty freely. It will not be found that the genus is subdivided unnecessarily.

Any vendor of bulbs can readily distinguish the bulbs of the common yellow, the vernal, the cloth of gold, the saffron, and that called Scotch Crocus, by their outer coat; and other species are so distinguishable, though often more easily by the eye than by a written description; but besides that apparent diversity, there is a great difference as to the part of the corm or kernel into which the several coats, or remaining bases of the last year's leaves and leaf-sheaths, are inserted, which is not so easily ascertained; and also of the particular zone, between the lines of insertion, from which the root-fibres spring; and it is in fact more easy to ascertain the species from a dry bulb than from a leaf or flower.

Seven species or varieties are said to be found in Corfu, which I have not yet seen; three belonging, I apprehend, to C. lagenæflorus; one to biflorus; one to reticulatus, blue; one said to be vernus, which is scarcely probable; and two imperfectly known, with an autumnal purplish flower.

Four plants of C. pulchellus were found in Belgrade forest with the limb white and throat yellow. It is curious, that, as the climate of the Alps can delay the spring Crocus even to August, the beginning of autumn on M. Taurus can bring forward the autumnal in the same month.

W. H.

4

1

TURRÆA lobāta.

Lobed Turræa.

MONADELPHIA *DECANDRIA.*

Nat. ord. MELIACEÆ.

TURRÆA, L. Calyx 5-dentatus, rarò in (in T. pumilâ) 5-partitus, vel (in T. tetramerâ) 4-dentatus. *Corolla* 5-petala, petalis ab imâ basi demùm patentibus. *Tubus stamineus* a corollâ liber, intùs ad apicem antheras 10, vel (in T. tetramerâ) 8, sessiles vel brevissimè stipitatas gerens, margine (quandoque reflexo) plerùmque in dentes lacinulasve formæ variæ diviso. *Tubus interior* nullus; sed post anthesin annulus brevissimus duplex, exterior e basibus petalorum, interior e basi tubi staminei, persistentibus, basin ovarii cingens. *Ovarium* 5-, 10-, 20-loculare, loculis sepalis (dum numero æquālibus) oppositis, 2-ovulatis. *Stylus* tubi staminei longitudine vel longior. *Stigma* exsertum discoideum, styli dilatationem formæ variæ terminans. *Capsula* 5-vel pluri-locularis, loculis 1-2-spermis. *Semina* infra apicem suspensa, arillata.——Arbores fruticesve, foliis *simplicibus integerrimis rarò (in* T. heterophyllâ) *obtusè lobatis, vel (in* T. pumilâ) *sinuato-dentatis.* Flores (*pedunculo communi abbreviato*) *fasciculati, pedicellati, vel rarò (in* T. tetramerâ) *sessiles.* Bennett in Horsfield's Plant. Jav. p. 180.

T. *lobata;* foliis rhombeis apice trilobis dentatisque subtùs pubescentibus, floribus solitariis axillaribus, calycibus 5-dentatis, petalis spathulatis columnæ longitudine, columnâ viginti-dentatâ intùs hirsutâ laciniis subulatis, antheris 10 exsertis, ovario 5-loculari. *Lindl. in Bot. Reg.* 1843. *misc.* 86.

This very rare stove plant flowered at Chiswick House last July. His Grace the Duke of Devonshire received it from Mr. Whitfield, who collected it in Sierra Leone. The flowers have much the appearance of those of the orange, but have no smell.

The nearest affinity of this plant is evidently with the *T. heterophylla* of Smith, a species from the same country, and apparently very like it. But Mr. Bennett, in his revision of the genus in *Horsfield's Plantæ Javanicæ*, p. 184, places *T. heterophylla* in a section having from ten to twenty cells to the

ovary; this however has most certainly only five cells with two ovules in each.

Fig. 1. represents the tube of the stamens in this plant, and the club-shaped head of the style, with five stigmas projecting beyond it. The twenty awl-shaped reflexed teeth which form a kind of coronet to this tube, stand in pairs between the ten anthers, and are apparently lateral processes of the stamens, one of each pair belonging to a different stamen.

There is something very singular in the *placentæ, which are densely covered with entangled twisted jointed hairs,* the nature and use of which require further examination.

5

CATTLEYA pumila.

Bordered Dwarf Cattleya.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ. § EPIDENDREÆ.
CATTLEYA. Lindl.

C. pumila, *Hooker in Bot. Mag. t.* 3656.

This pretty little species is stated in the Botanical Magazine to be a native of the Essequibo; but we cannot confirm that statement, which has probably originated in some mistake. It is most assuredly Brazilian, being the No. 657 of Mr. Gardner's herbarium, and having been imported by a French dealer, from that country, under the name of C. marginata, a very good name, expressing the appearance of a beautiful pale border to the blood-red blotch of the lip.

Our drawing was made in Mr. Loddiges' Nursery.

It should be potted in turfy heath-mould, mixed with a few pieces of potsherds, to keep it as porous as possible. The pot should also be well drained, and the soil considerably elevated above its brim. In cultivation the genus Cattleya differs from many Orchidaceous plants; the species require very little water; even in spring, when the plants are growing, water once or twice a week will be sufficient, and if syringed it must be so slightly that no water may lodge in the axils of the leaves; but where steam can be admitted once a day, it will be found much better. During summer the house should be slightly shaded in sunny weather, and the temperature allowed to rise to 80° or 85° by day, but never above 70° at night. In winter, when little or no water will be required, except to keep the pseudo-bulbs from shriveling, the temperature may be as low as 65° by day and 58° by night.

There is in cultivation a plant called C. Pinellii, of which a specimen has been received from Messrs. Rollissons, and of

which the top of the column is figured at fig. 1. of the accompanying plate, which is nearly allied to this, but appears distinct. It has white sepals, and rose-coloured straight not curved petals. It requires further examination before its true value can be determined ; it is, however, very pretty.

Considering the number of species, or supposed species, of this glorious genus, now in our gardens, and the length of time that has elapsed since any arrangement of them has taken place, it seems desirable that they should be brought into one view ; especially as nearly all of them exist in our gardens. And I am the more induced to rearrange the genus, because I find some of the remarks made at t. 22 of the Sertum erroneous,—especially the statement that C. maxima is a Lælia, a mistake the origin of which I cannot trace. The division there suggested among the species is too artificial ; that now proposed will be found more natural.

There is no character by which Cattleya and Lælia can be distinguished except the number of pollen-masses, which are four in the former, and eight in the latter. The flowers of Lælia are usually indeed in a raceme elevated on a long graceful stalk ; but such is not the case in *Lælia Perrinii*, originally described by me as a Cattleya, and subsequently regarded by Sir W. Hooker (Bot. Mag. t. 3711) as a variety of C. intermedia ; nor in *L. virens.*

CATTLEYA.

Section I. Lip rolled round the column.

* Sepals of the texture of petals, the lateral quite straight.

1. C. *superba* (Lindl. Sert. Orch. t. 22. C. *Schomburgkii*, Lodd. cat. no. 434.) ; caulibus clavatis sulcatis, foliis oblongis marginatis caule brevioribus, sepalis oblongis acutiusculis, petalis lanceolatis acutis membranaceis ferè duplò latioribus, labelli trilobi lobis lateralibus acutis intermedio transverso plano emarginato denticulato basi venis elevatis rugoso, callis duobus pone basin.—— *Demerara.*——Flowers deep rose-coloured, sweet scented, with a deep crimson lip.

2. C. *Skinneri* (Bateman Orch. Mex. Guat. t. 13.) ; caulibus clavatis foliis binis ovalibus obtusis, spathâ abbre-

viatâ, sepalis angustis oblongo-lanceolatis rectis, petalis oblongis 3-plò latioribus, labello integerrimo convoluto emarginato plano, "columnâ nanâ 3-plò longiore."——*Guatemala.*——Flowers deep rich rose colour, with a crimson lip, resembling those of C. Skinneri. This species inhabits the hot damp coast, on very high trees, and is most difficult to get at, except after a storm that may have chanced to throw down some of the large forest trees. It should be well watered daily, to represent the heavy dews and the rains, which latter are from May to November. Mr. Skinner recommends care to be taken that it may not imbibe too much moisture, as its habitat is on branches of large trees seldom having any lichen, where the heavy rains do not lie. It does not seek too much shade, but rather, like 'Epid. aurantiacum,' exposed places. Climate 80° to 85°, and sometimes 95°, during the day. Flowers in January and February; vulgarly called 'Flor de San Sebastian,' from its being in season, and adorning the altars on that saint's day (20th of January).

3. C. *Walkeriana* (Gardner in London Journ. Bot. 2. 662); foliis oblongo-ellipticis coriaceis marginatis caule cylindrico longioribus, sepalis oblongo-lanceolatis acutiusculis calloso-apiculatis, petalis ovato-lanceolatis acutis duplò latioribus, labelli trilobi cucullati lobis lateralibus apice valdè et obliquè truncatis basi rotundatis, intermedio lato rotundo emarginato edenticulato plano basi venis elevatis rugosis.——*Brazil;* on the stem of a tree overhanging a small stream which falls into the Rio S. Francisco, beyond the Diamond district.——Flowers about 4 inches in diameter. Near C. superba; distinguished by its shorter pseudobulbs, smaller leaves, larger and rounder middle lobe of the labellum, but particularly by the obliquely truncated lateral lobes which envelope only the lower half of the broadly winged column, and not the whole of it.—*Gardner.*

4. C. *maxima* (Lindl. Gen. et Sp. orch. no. 4.); caulibus obovato-clavatis angulatis, foliis 1-2 ovato-oblongis, spathâ pedunculo multò breviore, sepalis lineari-oblongis obtusis, petalis subrotundo-ovalibus undulatis membranaceis, labelli maximi crispi oblongi obsoletè trilobi lobo medio

unduiato altè emarginato, disco lævi.——*Guayaquil* and *Colombia*.——Fine specimens, and live plants brought home by Mr. Hartweg shew this to be a rival of C. labiata. Its flowers are as large, and are described as being of a beautiful dark pink.

5. C. *labiata* (Lindl. coll. t. 33.); caulibus clavato-fusiformibus sulcatis, foliis solitariis oblongis, spatha pedunculi longitudine, sepalis lineari-lanceolatis acutis, petalis membranaceis oblongo-lanceolatis undulatis multò latioribus, labello obovato crispo-undulato emarginato disco lævi. *Varietates sunt.* α. petalis oblongo-lanceolatis undulatis, labelli disco sanguineo. (C. *labiata*, Lindl. l. c. Gen. et Sp. orch. 116. Hooker exot. fl. t. 157. Lodd. Bot. Cab. t. 1856. Bot. Mag. t. 3998.) β. petalis latioribus subcrispis, labelli disco luteo sanguineo punctato aut picto. (C. *Mossiæ*, Hooker in Bot. Mag. t. 3669. Bot. Reg. 1840, t. 58.)——α *Brazil.* β *La Guayra.*——One of the most noble species of this fine genus. The varieties of what has been called C. Mossiæ are numerous, and seem to prove that no reliance can be placed on the supposed distinctions between it and C. labiata. It must however be confessed that the question is open to further consideration.

6. C. *crispa* (Lindl. Bot. Reg. t. 1172. orch. no. 1. Hooker in Bot. Mag. t. 3910.) caulibus crassis oblongis clavatis, foliis solitariis, spathâ magnâ herbaceâ, sepalis lineari-obovato-lanceolatis acutis, petalis latioribus oblongo-lanceolatis undulatis crispis, labelli indivisi limbo ovato acuminato quam maximè undulato-crispato.——*Brazil.*——Flowers very large, pure white, with a large crimson blotch in the middle of the lip.

7. C. *citrina* (Lindl. Gen. et Sp. orch. no. 8. Bot. Mag. t. 3742. " *Corticoatzontecoxochitl.* Hernand. Mex. 1. p. 240." *Sobralia citrina.* Llave Nov. Veg. Descr. 2. 21.); caulibus ovatis squamis laxis albis membranaceis vestitis, foliis lanceolatis glaucis, pedunculis longissimis solitariis, floribus carnosis pendulis, sepalis oblongo-ellipticis, petalis conformibus paulò latioribus, labelli trilobi lobo intermedio ovato undulato emarginato lineâ mediâ latâ elevatâ.——*Mexic.*——A mountain plant remark-

able for its rich clear yellow flowers, which are very sweet scented.

8 C. *pumila* (Hooker in Bot. Mag. t. 3656. Lindl. Bot. Reg. 1844. t. 5. C. *marginata*, Hort.); caulibus brevibus ovalibus sulcatis, foliis solitariis ovato-oblongis acutis, pedunculo unifloro, sepalis lineari-lanceolatis rectis, petalis ovalibus 3-plò latioribus, labello obovato indiviso apice plicato, lineis 3 elevatis in medio.——*Brazil*, (Gardner, 657).——This is said to be from the Essequibo, but that appears to be a mistake. It is a very distinct species, with peculiarly thick acute solitary leaves, and deep rose-coloured flowers. The lip is bordered with a pale colour, which is sometimes almost white.

9. C. *Pinellii* (Hort.); facie C. pumilæ sed sepalis *acutis albidis*, petalis *ovatis* roseis, labello magis crispo, columnâ apice dentibus 2 crenatis auctâ.——*Brazil.*——Very near C. pumila, but the sepals are white, the petals almost exactly ovate, the lip more crisp and of a brighter colour. Requires further examination.

** Sepals somewhat herbaceous, or more coriaceous than the petals, the latter manifestly falcate.

10. C. *Loddigesii* (Lindl. Coll. Bot. t. 37. Gen. and Sp. no. 5. Hooker Bot. Misc. t. 186. *Epidendrum violaceum*, Lodd. Bot. Cab. t. 337. *Cattleya ovata*, Lindl. in Bot. Reg. t. 1919.)—*Var.* floribus pallidioribus; (*C. intermedia*, Graham in Bot. Mag. t. 2851. L. no. 6.)—*Var.* floribus subalbis; (*C. intermedia pallida*, Lindl. in Bot. Reg. t. 1919. *C. vestalis* Hoffsg. verzeich?); caulibus elongatis teretibus, foliis 2 ovato-oblongis, spathâ brevi membranaceâ, sepalis oblongis lateralibus falcatis, petalis subconformibus, labelli lobis lateralibus rotundatis intermedio dilatato crispo 2½ longioribus, lineis pluribus elevatis lamellatis pone basin versus apicem evanescentibus.——*Brazil* and *Buenos Ayres.*——Flowers sometimes clear lilac with a whitish lip, sometimes nearly white with a crimson lip, with many intermediate gradations. It always appeared doubtful whether C. *intermedia* could be distinguished, and more experience in estimating the value of characters among these plants leads to the conclusion that C. *ovata* must also be reduced to the same species. It seems to be very common in Brazil, and to occur as

far south as Buenos Ayres. Mr. Gardner found it on trees in *marshes* at the foot of the Organ mountains, (no. 5635 of his herbarium). The size of the leaves is much affected by situation ; in all cases, however, they seem to be broader at the base than at the point. So far as the character of Count Hoffmannsegg's *C. vestalis* can be judged of, that plant is the pale C. intermedia.

11. C. *Harrisoniana* (Bateman in Bot. Reg. sub t. 1919.); "foliis angustè lanceolatis," sepalis oblongis apiculatis, petalis ovalibus, labelli trilobi lobis lateralibus rotundatis intermedio angusto crispo 1½ longioribus : lineis pluribus elevatis per totam axin lamellis nullis.——*Brazil.*——I only know this plant from two flowers given me by Mr. Bateman. They have much shorter and broader sepals than C. Loddigesii, the petals are much broader, and the proportion between the middle lobe of the lip and its lateral lobes is quite different. Besides which, certain elevated lines run all the way from the base to near the apex of the lip. The flowers are lilac; the tip with a deep blotch within the margin.

12. C. *Forbesii* (Lindl. Coll. Bot. sub t. 37. Bot. Reg. t. 953. Lindl. no. 7. Bot. Cab. t. 1152.); caulibus elongatis teretibus, foliis 2 oblongis, sepalis petalisque lineari-oblongis obtusis subæqualibus, labelli trilobi lobo medio cordato subrotundo-ovato argutè dentato undulato apiculato : lateralibus minoribus rotundatis planis, lineis 4 elevatis pone basin lamellâque membranaceâ utrinque, columna basi lineis 5 elevatis quarum duæ majores cristata, clinandrii cardine tuberculo corrugato acuto.——*Brazil.*——Flowers greenish yellow. Lip with bright orange brown veins. Very near C. Loddigesii.

13. C. *maritima* (Lindl. in Bot. Reg. sub t. 1919.); pedunculo unifloro, caule subclavato, foliis binis ovalibus obtusis spatha parum longioribus, sepalis oblongis acutis, petalis lanceolatis falcatis obtusis, labello trilobo (nudo?); laciniis lateralibus erectis rotundatis intermediâ dilatatâ denticulatâ emarginatâ.——Sea-beaten rocks, *Buenos Ayres.*——Flowers fine, rose-coloured, usually in threes; many varieties. Its small leaves, dwarf habit, and one-flowered peduncle, mark this, of which I have only seen one specimen with a single flower. Possibly it is one of the many varieties of C. Loddigesii.

14. C. *Arembergii* (Scheidweiler in Gartenzeit. 1843. p. 109.); "sepalis lateralibus falcatis obtusiusculis, supremo lanceolato, petalis latioribus undulatis, labelli trilobi lobis undulato-crispis, intermedio margine lilacino lamina lutea, lateralibus margine lutescentibus, spatha herbacea compressa obtusa, pseudobulbis cylindraceis nitidis, foliis ovatis carnosis, obscure viridibus."——*Brazil.*——This species is only known from the above description. It is said to bear much resemblance to some others, but to be distinguished by its beautiful dull green ovate leaves, and its great lilac flowers. The stem is said to be eight inches high, the leaves four inches long and two inches broad; the flowers sweet-scented. It may be C. *Harrisoniana*, or *maritima*; but it seems to be distinct.

15. C. *guttata* (Lindl. Bot. Reg. t. 1406. Orch. no. 10. Hort. Trans. 2 ser. 2. t. 8. C. *elatior*, Lindl. Orch. no. 9.); caulibus elongatis teretibus, foliis 2 oblongis concavis basi paulò angustatis, spathâ brevi, floribus carnosis, sepalis lineari-oblongis acuminatis, petalis conformibus paulò latioribus undulatis, labelli trilobi lobis lateralibus ovatis: intermedio cuneato bilobo disco tuberculato.——*Brazil.*——Flowers greenish yellow, beautifully spotted with crimson; lip white with a lilac tip. Raceme sometimes as large as a man's head.

16. C. *granulosa* (Lindl. in Bot. Reg. 1842, t. 1. C. *guttata* β *Russelliana*, Hooker in Bot. Mag. t. 3693?); caulibus teretibus gracilibus diphyllis, foliis oblongo-lanceolatis obtusis, sepalis oblongis obtusis, petalis obovato-spathulatis undulatis obtusissimis, labello cucullato tripartito: laciniis lateralibus semiovatis intermediâ sinu lato divulsâ ungue æquilateri lævi laminâ dilatatâ rotundatâ plicatâ granulosâ denticulatâ.——*Guatemala.*——This has a slender stem, terminated by two narrow leaves, something like those of C. bicolor, but shorter. Sepals two inches and a half long, oblong, olive green, mottled with rich brown spots. Petals obovate, very much rounded at the point, and narrowed to the base; wavy at the margin, and of the same colour as the sepals. Strongly contrasted with the dingy colours of those parts is the lip, of a pure white at the sides and point, and of a glowing orange spotted with crimson in the middle; its

lateral lobes curve over the column, but are divided very deeply from the middle lobe by a wide slit; the middle lobe itself has its surface broken up into numerous granulations, something in the way of C. guttata. It is scarcely possible to doubt that the plant figured in the Botanical Magazine as a variety of C. guttata, is this species. The Brazilian origin attributed to it is no doubt erroneous, like that of many plants from the Woburn collection.

Section 2. Lip without the lateral lobes, and flat below the column.

17. C. *Aclandiæ* (Lindl. in Bot. Reg. 1840, t. 48.); caulibus cylindraceis striatis decumbentibus, foliis 2 oblongis, floribus subsolitariis, sepalis petalisque herbaceis lanceolatis æqualibus incurvis maculatis, labelli plani calvi hypochilio dilatato patulo subrepando epichilio orbiculari-reniformi emarginato.——*Brazil.*——Flowers dull olive green, nearly the colour of C. granulosa. Lip dull violet. The smallest species yet known.

18. C. *bicolor* (Lindl. in Bot. Reg. sub t. 1919.); foliis ovato-oblongis angustis caule tereti elato triplò brevioribus, sepalis lanceolatis falcatis acutis, petalis parum latioribus subundulatis obtusis, labello indiviso plano apice dilatato rotundato crenato convexo.——*Brazil.*——Stems two to three feet long. Sepals and petals tawny; labellum bright purple, with a lanceolate streak in the centre, white slightly spotted with purple. The flowers are slightly fragrant. This was introduced by Mr. Pontey of Plymouth, and flowered in his nursery in 1838.

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19. C. *Domingensis* (Lindl. Orch. no. 11.); caule brevi oblongo annulato squamoso, folio ovali-oblongo coriaceo, scapo terminali longissimo stricto apice racemoso 7-8 floro, sepalis lineari-lanceolatis acutis petalis oblongis obtusiusculis triplò angustioribus, labello indiviso obovato obtuso plicato-crispo emarginato cucullato.——*St. Domingo.*——In the absence of sufficient evidence as to this species, which is no. 231 of Jaeger's collections, it may be conjectured to be a Lælia rather than a Cattleya. It is found on logwood trees in the wood near Miragoane, in St. Domingo, where it flowers in April.

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6

EUONY̆MUS japonĭcus.

Japan Euonymus.

TETR.-PENT.-HEXANDRIA *MONOGYNIA.*

Nat. ord. Celastraceæ.
EUONYMUS. *L.*

E. *japonicus*; sempervirens, foliis coriaceis oblongis basi in petiolum angustatis obtusè serratis: serraturis mucronulatis, cymis paucifloris folio duplò brevioribus, floribus quadrifidis, petalis orbiculatis indivisis.
E. japonicus, *Thunb. fl. jap. p.* 100. *Banks ic. Kæmpf. t.* 8. *DC. prodr.* 2. 4.

In all respects this corresponds with the account given by Thunberg, of the *Iso Curoggi*, or *black shore-tree*, of the Japanese, even to the sporting into a silver blotched variety, also in our gardens. He says it is in Japan a bush about as high as a man. With us it is not as yet higher than three or four feet, but it has all the appearance of becoming much larger.

Although no beauty is to be found in its flowers, this plant is of the same kind of value as the common Laurel, Phyllireas, and Alaternus, being a *hardy Evergreen shrub*, with much the appearance of a small leaved Orange. It is true that in very severe winters it is liable to be killed to the ground, but so are the Bay, the Ilex, and others; it however springs up again and rapidly forms a new bush. When older it will probably become more hardy.

It is easily increased from cuttings of the half ripened wood, placed under a hand-glass or in a close frame, and shaded in summer.

It flowers in July and August, but has not as yet produced fruit. There are two varieties, one with silver striped, the other with gold striped leaves; but the latter is very subject

to run back to the green-leaved, while the silver striped hardly ever changes.

It is called in many places, "Chinese Box," the name it bore when first introduced from Belgium.

Pub. by J. Ridgway 169 Piccadilly Feb. 1. 1844.

STIGMAPHYLLON jatrophæfolium.

Jatropha-leaved Stigmaphyllon.

DECANDRIA *TRIGYNIA.*

Nat. ord. MALPIGHIACEÆ.
STIGMAPHYLLON. Aug. de St. Hil. Supra, vol. 20. *t.* 1659.

S. *jatrophæfolium;* foliis palmato-5-7-fidis-partitisve acutis serrato-ciliatis cordatis lobis basi divergentibus glabris petiolatis, petiolo apice biglanduloso, samaris . . . . *Adr. de Juss. Fl. Bras. merid.* 3. 51. *t.* 170.

According to M. Auguste de St. Hilaire this little plant is an inhabitant of rocky places near the fort of Salto on the banks of the Uruguay, in the province of Rio Grande do Sul, where it creeps over the surface of the soil. Our own herbarium contains Brazilian specimens of the plant communicated by the Royal Herbarium of Berlin from Sellow's collections.

The figure now given was taken from a fresh branch sent last July anonymously from Liverpool to the Editor of the Gardener's Chronicle. We, therefore, conclude that it will soon make its appearance in the collections round London. No doubt it will be a very pretty twiner, well suited for cultivation in pots attached to trellis. Its leaves are a clear light green, and beautifully cut; it appears, however, from the figure above quoted, that they are sometimes heart-shaped and undivided.

The whole genus is worth cultivation, and some of the species extremely handsome. They amount to 45, according to M. Adrien de Jussieu, and are found in most of the warmer parts of South America, especially Brazil. Some of them are Banisterias of authors.

Of the cultivation of this plant we can of course know nothing certain. It is however probable that it will prove suited to a greenhouse; but as it is found trailing among stones it will no doubt require full exposure to all the sun

light that can be obtained in this climate. Probably the treatment given to Melons will suit it during summer.

We should add, however, that the correspondent who sent it states that it is a free flowerer growing luxuriantly in a moist stove.

If treated as a stove plant it requires to be potted in a compost consisting of two parts sandy loam and one of peat, in a rough state, but well mixed together. During the summer months an ample supply of water should be given, and the atmosphere kept as moist as possible. In sunny weather the house should be slightly shaded, otherwise the young leaves will become scorched by the sun. The temperature in summer may rise as high as 80° or 85° by day, and fall as low as 68° at night, but in winter never above 58° with fire heat. It may be propagated by cuttings in the usual way.

rake del.t Pub. by J. Ridgway 169 Piccadilly Feb.y 1 1844 G. Bar

ANIA bicornis.

Two-horned Ania.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ. § EPIDENDREÆ.

ANIA. *Lindl. gen. & sp. Orch. p.* 129.

A. *bicornis* (Lindl. in Bot. Reg. 1842. misc. 31.); folio oblongo-lanceolato carnoso scapo breviore, labelli lobo medio emarginato apiculato ecalcarato basi bilamellato lamellâ alterâ versus apicem interjectâ, antherâ bicorni.

Labellum *cum basi producta columnæ articulatum.* Anthera 2-*locularis.*

To the Rev. J. Clowes, of Broughton Hall, we are indebted for a specimen of this terrestrial Orchidacea, which he received from Ceylon, and flowered in March 1842.

It belongs to a little group of the Epidendreous section, of which Bletia is the type, and is nearly allied to A. *latifolia,* a Sylhet plant, at present known only from dried specimens; from that it differs in having much smaller flowers and leaves, an entirely different labellum, and a 2-celled anther; that of A. latifolia being 8-celled. In the latter circumstance, indeed, it corresponds with the neighbouring genus Cytheris, whose distinctive character is therefore not to be taken from the cells of the anthers, but from its resupinate flowers, and truly calcarate labellum. In Ania the labellum, if it appears to have a spur, as in A. angustifolia, owes that appearance to the extension of the foot of the column.

Fig. 1 is a view of the lip of this plant; 2 shews the column, with its lengthened foot and two-horned anther; 3 gives the appearance of the pollen-masses.

At first sight this plant, when in flower, resembles a starved specimen of Eulophia macrostachya.

9

Pub by J. Ridgway 169 Piccadilly Feb 1 1844

CRINUM variabile, *var.* roseum.

Rose-coloured changeable Crinum.

HEXANDRIA *MONOGYNIA.*

Nat. ord. Amaryllidaceæ.
CRINUM. *Herbert. Amaryll. p.* 242.

C. *variabile;* foliis lætè viridibus erecto-arcuatis crassis, floribus subsessilibus ortu albis rubro pallidè extùs notatis dein saturatè rubris campanulato-infundibularibus apice revolutis.
C. variabile, *Herbert, l. c.* 268.
Amaryllis variabilis, *Jacq. h. Schœnb.* 4. 426.
Amaryllis revoluta *β. Supra, vol.* 8. *fol.* 615.

This beautiful bulb flowered in April last with J. H. Slater, Esq. of Newick Park, near Uckfield. Its leaves are very long, and its gay rosy flowers most agreeably scented.

Upon shewing the drawing to the Dean of Manchester, the learned investigator of this difficult genus, he suggested the probability of its being either a variety of *Crinum variabile*, or a mule from *C. capense*, of which the Gardens now contain so many. A reference to the published figures of the former induces us to regard it as one of its varieties, with which it agrees in its bright green very long leaves, and comparatively short scape.

We borrow from Mr. Herbert's work the following memorandum concerning C. *variabile.* "This is the hardiest known species; out of doors it preserves its leaves in winter longer than Capense, and it shoots earlier in the spring. Both this plant and revolutum have a slender germen, but the idea conceived from Jacquin's plate by some persons, of its cells being monospermous was erroneous. It leaves are deep green. The flowers turn to a rich purplish red, so that

flowers of two colours are always on the same umbel, as represented by Jacquin. The figures in the Register were taken at too early a period for a just representation, before the expansion of the flowers. Mr. Ker considers Am. revoluta (Bot. Mag. 1178) to be this plant. The plant offered at Mr. Woodford's sale, which Mr. Wykes, his gardener, asserted to be the one from which the figure was made, was not distinguishable from a common glaucous-leaved C. capense ; and I observe in Mr. Ker's description, he says of the leaves rather glaucous, which is not the case with any bulb I ever saw of variabile, which has the green very bright ; and if the plant had been variabile, the two decaying flowers in the figure would have been intensely red. The figure, therefore, if intended for C. variabile is quite incorrect, but it agrees better with some plants that I have of C. capense. Mr. Ker draws a peremptory distinction, that in variabile the tube is shorter than the limb, and in capense longer ; but in his own fig. of Capense (Am. longifolia, Bot. Mag. 18. 661.) it is shorter. Usually, however, the tube is shorter than the limb in Capense, but it is a very variable plant, and in some seedling varieties its flowers change to red, as in variabile, which I consider to be much more akin to it than to revolutum. It is, therefore, best to discard all consideration of that plate, and of Mr. Ker's description accompanying it, as far as it disagrees with his amended description in the Bot. Reg. 8. 615."

SPIRÆA Reevesiāna.

Mr. Reeves's Spiræa.

ICOSANDRIA *POLYGYNIA.*

Nat. ord. ROSACEÆ.
SPIRÆA. L.

S. *Reevesiana;* foliis lanceolatis serratis trilobis pinnatifidisve utrinque glabris subtus glaucescentibus, racemis capitatis terminalibus pedunculatis, sepalis intus villosis.
S. Reevesiana, *Hort.*
S. corymbosa, *Roxb. fl. ind.* 2. 512.

Frutex *fere sempervirens, nitidus,* S. chamædrifoliæ *aspectu,* foliis *in ramis vegetioribus ferè pinnatifidis in planta juniore sæpe trilobis, senectute indivisis serratis.*

This plant, which was introduced from China by Mr. Reeves, whose name it bears, is generally supposed to be the S. lanceolata of Poiret: but that species is described with axillary sessile umbels, and must therefore be different. It is certainly Roxburgh's S. *corymbosa,* a name however which, being pre-occupied by Rafinesque, cannot well be retained. Probably, it is also the no. 701 of Dr. Wallich's Indian Herbarium, and if so, may be a native of the mountains of India, as Dr. Roxburgh states.

The leaves on its strong young shoots are so deeply lobed as to be almost pinnatifid. On the branches, when the plant is young, they are frequently 3-lobed; but as it becomes old they lose their lobed character altogether.

It is a handsome hardy sub-evergreen shrub, growing in any good garden soil, from three to four feet high. It is easily increased from cuttings of the small half-ripened twigs any time during the summer or autumn. The cuttings should

be put in sand, and covered with a bell-glass, and placed in an exhausted dung frame.

It forms a spreading bush, and flowers freely in May and June. It probably would be quite evergreen in the warmer parts of England.

Fig. 1. represents a calyx split open to shew the hairy surface of its lobes, the ovaries, undulated disk, and stamens.

ss Drake del. Pub by J. Ridgway 169 Piccadilly Feb. 1 1844

GENISTA virgata.

Twiggy Broom.

MONADELPHIA *DECANDRIA.*

Nat. ord. Leguminosæ. § Papilionaceæ.
GENISTA. Lam.

G. *virgata ;* ramis virgatis teretibus striatis, foliis oblongo-lanceolatis subsericeis, floribus secus ramulos solitarios subracemosis, petalis sericeis longitudine subæqualibus, leguminibus villosis 1-3-spermis compresso-planis ad semina subtorosis. *DeCand. Prodr.* 2. 149.
Spartium virgatum, *Ait. Hort. Kew.* 3. 11.
Cytisus tener, *Jacq. ic. rar. t.* 147.
Genista gracilis, *Poir. suppl.* 2. 715.

The plant from which this figure was taken we received from Mr. Young, Nurseryman, Milford, in July 1843. He states that it is a very handsome compact shrub, which resisted the hard winter of 1836-7. It was raised from the seeds sent by Mr. Webb from Madeira in 1825, was turned out in 1833 into the open border, and is now a very woody shrub. It is deserving a place in all shrubberies.

In the garden of the Horticultural Society it grows about four feet high, and is capable of enduring the ordinary winters round London, if placed in a dry situation, and planted in a loamy soil. It is increased by seeds or by cuttings of the young wood after midsummer. The cuttings should be placed in a shady situation, in light sandy soil, and covered with a hand-glass. It flowers freely in May and June, and forms a loose rather spreading bush, rather thin of foliage.

In the nurseries it is generally known by the name of Spartium virgatum.

In such wild and cultivated specimens, as we have had the opportunity of examining, the leaves were uniformly sim-

ple ; in the specimen represented, however, the lowest on each twig, those in fact from whose axil the twigs proceeded, were trifoliolate. This is interesting, as shewing an occasional passage to the 3-leaved species, even among those whose foliage is most decidedly simple.

Fig. 1. shews the calyx and stamens ; 2. is a section of the ovary.

3
2
1

LISSOCHĪLUS roseŭs.

Rose-coloured Lissochilus.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ. § VANDEÆ.
LISSOCHILUS. *Supra, vol.* 12. *vol.* 1002.

L. *roseus* (Lindl. in Bot. Reg. 1843. misc. 37. *Dendrobium roseum,* Swartz. in Persoon synops. p. 523.) ; foliis lato-lanceolatis erectis plicatis, scapo squamis lanceolatis acutis membranaceis distantibus vaginato, racemo denso oblongo, bracteis ovatis acuminatis ovario brevioribus, sepalis spathulatis acutis concavis reflexis, petalis oblongis apiculatis, labelli trilobi lobis rotundatis intermedio emarginato cum mucrone, disco lamellis tribus undulatis serrulatis tuberculo parvo utrinque.

Although the terrestrial Orchidaceæ of hot countries are too often very inferior to the epiphytes, yet there are many exceptions to that rule, among which few are more striking than the present, which will not suffer by comparison with the Vandas, Saccolabiums, and Dendrobiums of India.

It is a native of Sierra Leone, whence it was received by Mr. Rucker, in whose magnificent collection of Orchidaceæ it flowered in February 1843. The leaves are broad, stiff, and plaited like a reed ; the flower-stem is between 3 and 4 feet high. The petals are of the brightest rose colour, set off with velvety-brown sepals, and a yellowish stain on the lip.

There is another plant in the same part of Africa, which would perhaps excel even this in beauty, and it is much to be regretted that no one should have yet been able to send it home. Its petals, even dried, are an inch and a half long. Sir William Hooker has a specimen in his herbarium, collected near Boney, which we named some years ago Lissochilus macranthus.

Fig. 1. shews the inside and form of the lip ; 2. the column ; and 3. the pollen-masses.

While we are writing on this subject, we would also mention another most noble plant, specimens of which might certainly be procured by any of our African merchants. When Mr. Ansell was ill from the effects of the Niger expedition, at Fernando Po, he found in Clarence Cove, growing on the stems of the Oil Palm (Elais guineensis), an epiphyte with a slender jointed stem about two feet long, having at the upper end many stiff, plaited, lanceolate, 5-ribbed leaves, and a terminal panicle of flowers as large as those of Vanda Roxburghii, with dark purple spots on a pale ground. Of that plant we possess a dried specimen, with one of the lower branches of the panicle in good preservation, and as it proves to be a new genus we take this opportunity of naming it after its discoverer

ANSELLIA.

Sepala oblonga, carnosa, æqui-patentiâ, libera. *Petala* conformia, recta, patula, duplò latiora. *Labellum* sessile, patulum, trilobum, bilamellatum, lobo medio minore verrucoso. *Columna* elongata, marginata, basi utrinque auriculata. *Anthera* bilocularis. *Pollinia* 4, sessilia, basi contigua, duobus dorsalibus multo minoribus; glandula angusta utrinque acuminata.——Caulis *elongatus, teres, apice tantum foliosus.* Folia *plicata, coriacea.* Panicula *terminalis.*

Sp. 1. Ansellia africana.

It appears that this genus must be referred to that set of Vandeæ of which Cymbidium must be taken as the type. In fact, it is very near that genus in technical characters, though extremely different in its manner of growth. The auricles at the base of the column, the four pollen-masses, and the very narrow gland fining away to each side will serve to distinguish it.

BOLBOPHYLLUM macranthum.

Large-flowered Bolbophyllum.

GYNANDRIA *MONANDRIA*.

Nat. ord. ORCHIDACEÆ. § MALAXEÆ.
BOLBOPHYLLUM. *Supra, vol.* 23. *t.* 1942.

B. *macranthum;* foliis petiolatis oblongis planis coriaceis, floribus solitariis, pedunculo petiolo longiore, flore plano resupinato, sepalo dorsali plano ovato acuminato lateralibus petalisque subconformibus hinc tortis, labello minimo unguiculato subtrilobo acuminato.

This singular plant was imported by Messrs. Loddiges from Sincapore, and is closely allied to both B. leopardinum and affine. From each it differs in its much more fleshy and larger flowers, whose stalk is considerably longer than the petiole.

The flowers appear in March, and expand so flat that they seem as if they had been pressed between paper. In the centre they are a pale lemon colour, but towards the tips they are much mottled with dark chocolate-coloured spots.

Like the rest of the genus it succeeds best when tied to a block of wood, and suspended to a rafter in a moist stove. If the wood is charred enough to burn off the bark the block will be found to answer the purpose much better, and all insects that harbour about it will be destroyed. In summer the plant should receive water twice a day at least, and the temperature should be kept about 80° by day, and 68° at night. In winter for a few weeks very little water will be required, only as much as to keep the pseudo-bulbs from shriveling. The temperature then should never be raised above 50° or 55° with fire heat.

*NELUMBIUM Caspicum.

Caspian Nelumbium.

POLYADELPHIA *POLYGYNIA.*

Nat. ord. NELUMBIACEÆ.

NELUMBIUM, Juss. Calyx tetrapentaphyllus, foliolis imo toro insertis, liberis, deciduis. *Torus* carnosus, obconicus, ovaria includens. *Corollæ petala* plurima, imo toro multiseriatim inserta, oblonga, patentia. *Stamina* plurima, imo toro pluriseriatim inserta, libera; filimenta filiformia, supra antheras in appendiculam producta; antheræ introrsæ, biloculares, loculis linearibus, adnatis, longitudinaliter dehiscentibus. *Ovaria* plurima, libera, unilocularia, tori alveolis immersa. *Ovula* solitaria v. gemina, ex apice funiculi a basi loculi ad apicem adscendentis pendula. *Styli* breves, simplices; *stigmate* peltato. *Nuces* plurimæ, monospermæ, e tori aucti alveolis emergentes, liberæ. *Semen* inversum, exalbuminosum. *Embryo* crassus, intra pericarpium germinans.—Herbæ *in aquis* Asiæ *calidioris et* Americæ borealis *vegetantes, Nymphæarum facie;* rhizomate *crasso, repente;* petiolis pedunculisque *emersis teretibus, tuberculato-asperis,* foliorum *lamina centro peltata, orbiculata, penninervia, integerrima, glabra;* floribus *amplis, albis, roseis v. flavis,* seminibus *edulibus.*—Endl. gen. no. 5026.

N. *caspicum;* petalis obovatis obtusis magnitudine parum diversis, carpellis 9.
Nelumbium caspicum, *Fisch in DeCand. Syst.* 2. 45.
Nelumbium speciosum γ, *DeCand. l. c.*

The accompanying drawing was made in the nursery of Messrs. Rollissons of Tooting, in August, 1843. We are happy to have an opportunity of publishing it, not only for its own sake, but because it affords an opportunity of pointing out the true distinction between the Caspian and Indian Nelumbia.

According to M. DeCandolle all the Nelumbia found in various parts of Asia are varieties of one species, and this opinion is generally adopted. It is however difficult to believe that the deep red Nelumbium of India, with very sharp-pointed petals, such as is figured in the Botanical Magazine, t. 3916, and elsewhere, can be the same with the blunt-petalled white-flowered plant "found at the mouth of the Volga near Astrachan, in a part of the river called Tschulpan, amongst reeds intermixed with Nymphæas and Trapa," which,

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* Dr. Carey considers this name to be derived from two Sanscrit words; viz. *Neel* blue, and *Umboja* generated in water. Although we have not yet found a blue Nelumbium in these parts of Asia, yet it is said to be a native of both Cashmere and Persia. *Roxburgh.*

according to Messrs. Fischer and Steven, is the locality of this plant. M. DeCandolle indeed suspected that it must be different, but he did not remark in the dried specimens examined by him any character beyond the bluntness of the petals and their general uniformity in size, and upon that distinction he was unwilling to rely. The true difference seems to consist in the very small number of carpels, which do not appear to exceed nine, while in the great Indian species they are as numerous as thirty or thirty-three.

Speaking of N. speciosum and its supposed varieties, Dr. Roxburgh writes as follows :—

"I have met with only two sorts on the coast of Coromandel, one with rose-coloured flowers, the other with flowers perfectly white, and since that time a third variety has been brought from China with smaller rosy flowers. They grow in such sweet water lakes, &c. as do not dry up during the driest season, and, on the coast, flower all the year round. In Bengal they flower during the hot season, April, May, and June, and ripen their seed about the close of the rains. In China there is a still more beautiful bright crimson variety, which they call Hung-lin ; I have hitherto only seen a drawing of it. The white Nelumbium differs in few respects from the red one, and may be considered as only a variety of it.

"The tender shoots of the roots between the joints of both sorts are eaten by the natives, either simply boiled or in their curries. The seeds are eaten raw, roasted, or boiled. The leaves are used to eat off instead of plates. These holy and beautiful plants are often met with in the religious ceremonies of the Hindoos under their Sanscrit name *Padma.*"

It is a stove aquatic, requiring to be kept dry during winter. Before putting it into the water, which ought to be done about the beginning of February, it should be repotted in sandy loam mixed with pieces of sandstone, to act on the same principle as drainage, for the water in which it is grown requires to be renewed once or twice a week, and should never be allowed (especially in summer) to be below 80°. About the end of October, when the leaves begin to decay, the pot should be lifted out of the water and dried off gradually. As the soil becomes dry it will crack or leave the sides of the pot, which should be filled up with sand, in order to cover many roots that would otherwise be exposed.

QUISQUĀLIS sinensis.

Chinese Quisqualis.

DECANDRIA *MONOGYNIA.*

Nat. ord. COMBRETACEÆ.
QUISQUALIS. *Bot. Reg.* 6. *t.* 492.

Q. *sinensis;* foliis oblongis brevi-petiolatis ramulisque glabriusculis, bracteis deciduis.
Q. indica, *Lour. fl. cochinch.* 1. 336. ?

This plant was exhibited before the Horticultural Society in July, 1841, by Messrs. Lucombe, Pince, and Co. of Exeter; who stated that it is a more compact grower than the old Q. indica, and therefore more desirable for cultivation in pots. It manifestly differs in its smoother leaves and branches, and in the larger size of its flowers, which are moreover of a much deeper rose colour.

Upon comparing it with wild specimens of the genus, it appears to be identical with the plant that is found about Canton, and which is probably the Q. indica of Loureiro.

We presume it to be of the same nature as the true Quisqualis indica. That plant is a stove climber, requiring to be potted in sandy loam and peat, mixed with a few pieces of potsherds. In summer an ample supply of water should be given to its roots, and it should be syringed over head once or twice a day as the weather permits, taking care always to have the plant dry before night; and the house, when air is given, shut up early in the afternoon, to retain as much sun heat as possible. During the growing season the temperature should average 80° by day, and 68° by night; but in winter it should never rise above 60° with fire heat. The plant may be propagated by cuttings under ordinary treatment.

15

BERBĔRIS pallǐda.

Pale Ash-leaved Berberry.

HEXANDRIA *MONOGYNIA.*

Nat. ord. BERBERACEÆ.

BERBERIS. *Supra, vol.* 17. *fol.* 1425.

B. *pallida* (§ Mahonia); foliis 11-13 ovatis v. ovato-lanceolatis undulatis spinoso-dentatis basi rotundato-cuneato, inferioribus a caule parùm distantibus, racemis laxis folio longioribus, filamentis minutè bidentatis. *Bentham. Plant. Hartweg. p.* 34. *no.* 268.

To the pinnated, or ash-leaved, Berberries, formerly miscalled Mahonias, Mr. Hartweg has been able to add seven new Mexican species, among which is the plant now represented.

In its native country it forms an evergreen shrub from five to six feet high, and is found but sparingly near Cardonal and Zimapan, on mountains thinly covered with Pinus Llaveana. Mr. Hartweg also met with it near the hot springs of Atotonilco El Grande, but nowhere in any quantity. That gentleman informs us that it is easily distinguished by its dry hard leaves, and pale yellow flowers; and that the wood is also of a lighter colour than in any other species. In our gardens its appearance is vastly improved, and it will probably prove as handsome as others.

It grows freely when potted in a mixture of sandy loam and leaf-mould, to which is added a small portion of rough bone-dust.

Being at present extremely rare, it has not been tried in the open border; but the appearance of the plant leads us to suppose that it may be at least as hardy as B. fascicularis. Up to the present time it has been kept in a cold pit, in the garden of the Horticultural Society, where our drawing was made in May, 1843.

It may be increased like the other pinnated kinds, by grafting on the common B. aquifolium either in spring or autumn, when the young shoots are nearly hard; but hitherto the plant has not shewn the least disposition to make any lateral shoots, although three feet high. It will no doubt be increased hereafter by seeds, which are likely to be produced freely when the plants get older; as yet the berries have had no seeds in them.

It flowers during the months of January and February, if kept in the greenhouse, and in July ripens its long erect spikes of deep purple berries.

ARCTOSTAPHYLOS pungens.

Pungent Bearberry.

DECANDRIA *MONOGYNIA.*

Nat. ord. ERICACEÆ.

ARCTOSTAPHYLOS. *Supra, fol.* 1791.

A. *pungens;* erecta, ramulis racemis foliisque junioribus tenuissimè velutinis, foliis ovalibus oblongisque mucronato-pungentibus utrinque acuminatis coriaceis integerrimis, racemis brevibus terminalibus, bracteis acuminatis (setis quam antheræ longioribus, ovario 7-loculari.) *DeCand. Prodr.* 7. 584.

A. pungens, *Humb. Bonpl. & Kunth. nov. gen. Amer.* 3. 836. *t.* 259. *Hooker in Bot. Mag. t.* 3927.

A. tomentosa β, *Lindl. in Bot. Reg. sub t.* 1791.

This seems to be a common Mexican shrub, for it occurs in most collections from that country. In appearance it is extremely like Arctostaphylos tomentosa, and an insufficient examination of dried specimens led to the belief that it is a mere variety of that plant. The fresh specimens shew, however, that in addition to a want of the long beard-like hairs of the branches of A. tomentosa, this species has the awns of the anthers longer than the anthers themselves, and only seven cells to the ovary instead of ten.

Our drawing was made in the garden of the Horticultural Society, to which it had been introduced by Mr. Hartweg, who found it in Mexico, at an elevation of 7000 to 9000 feet above the sea, forming an evergreen shrub six to eight feet high, with a reddish brown smooth stem and branches, and very hard wood. It was common about Guanaxuato, Real del Monte, Bolanos, and Oaxaca, and is known there under the name of "Pinguica" or "Manzanilla," according to that Botanist.

Up to the present time it has proved, in cultivation, to be a neat little half-hardy or possibly hardy evergreen shrub, grow-

ing two or three feet high. But it is one of those uncertain plants which will die suddenly during the hot weather in July and August, especially after a few hours rain, if planted in the open border, although it may have been previously in the highest state of health and vigour. Mr. Gordon, who has had the management of it in the garden of the Horticultural Society, has given us the following note concerning its management.

" It seldom can be kept alive for more than two or three seasons after being raised from seeds, even in pots, unless treated in the following manner.

" The seeds should be sown in pans, filled with a mixture of peat and loam, to which should be added a small portion of decomposed cow-dung, and placed in a close pit or frame. They soon come up if sown in the spring or summer, but if sown late in the autumn the seeds lie in the soil until the following spring before they vegetate. When up, and before they make a rough leaf, prick them off into a fresh pan filled with the same kind of soil as that in which the seed was sown. Afterwards keep them shut up close and well shaded, and finally pot them off singly when they have made three or four proper leaves, giving them at once a shift into larger pots, and return them to the frame, which should now have the back turned to the sun, and be kept close for a few weeks; air not being given at any time until the plants are fairly started and growing again. *Afterwards remove the lights entirely during the night time, and keep them on quite close in the day,* during the summer and autumn. When the nights become wet and frosty, remove the plants to a cold pit for the winter, where there is plenty of light and air and no damp."

BROMHEADIA palustris.

Marsh Bromheadia.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ. § VANDEÆ.

BROMHEADIA, Lindl. in Bot. Reg. 1841. *misc.* 184. *Sepala* et *petala* subæqualia patentissima. *Labellum* cucullatum, trilobum, cum columnâ omninò parallelum, basi inarticulatum, secus axin elevatum pubescens. *Columna* latè alata, carnosa, elongata. *Anthera* 2-locularis, dorso conica, cum columnâ articulata. *Pollinia* 2, reniformia, posticè excavata, in glandulam latam, triangularem, membranaceam sessilia.——Herba *caulescens, ebulbis.* Folia *disticha, coriacea, emarginata.* Spica *terminalis, disticha, flexuosa, multiflora, longè pedunculata,* bracteis *brevissimis rigidis, dentiformibus.* Flores *speciosi, recti.*

Bromheadia palustris, *Lindl. l. c. Hooker. Bot. Mag. t.* 4001.
Grammatophyllum ? Finlaysonianum, *Lindl. in Wall. Cat. no.* 7561. *Gen. & Sp. Orch. p.* 173.

We formerly introduced this curious plant to our readers with a few observations which we beg permission to repeat, with some corrections.

" When Mr. Finlayson was in the Malay archipelago, he found a curious Orchidaceous plant at Sincapore with the habit of Epidendrum elongatum; and from specimens of it, almost destroyed by insects, which I examined some years since in Dr. Wallich's herbarium, I referred it with great doubt to Grammatophyllum, under the name of G. ? Finlaysonianum, (*Gen. & Sp. Orch. t.* 173.) This plant has flowered at Penllergare in South Wales with J. D. Llewelyn, Esq. who received it from Cuming, with the memorandum that it had been " dug out of a bog in Sumatra." Having now had the advantage of examining a perfect specimen in flower, I find that although nearly allied to Grammatophyllum, it is in fact very distinct. I therefore avail myself of the opportunity of adding to the list of genera the name of Sir Edward Ffrench Bromhead, Bart. F.R.S. whose investigations of the natural affinities of plants are well known to systematical Botanists."

In appearance the plant has the aspect of Epidendrum elongatum, as has been already stated; and like it has the whole of the upper part of the stem provided with closely pressed distant sheaths, instead of leaves, on which the spike of flowers is arranged. The latter is very rigid, between two and three inches long, regularly zigzag, with a short hard tooth-like bract at each bend, so that the spike without the flowers resembles a coarsely-toothed narrow double-edged saw. The flowers are about an inch long, white, and rather drooping, spreading quite open. The labellum, in which alone any colour resides, is straw-coloured on the middle lobe, and violet at the tips of the lateral lobes; along the middle, as far as the separation of the lobes, it is convex and covered with purple down; while the disk of the middle lobe is broken up into yellow granulations.

We shall take another opportunity of pointing out in what way Bromheadia most differs from its allied genera, Cymbidium, Grammatophyllum, Renanthera, &c.

Our drawing was made from a specimen communicated by His Grace the Duke of Northumberland, in November 1841.

Fig. 1. represents a front view of the column; 2. the inside of the lip; and 3. gland and pollen-masses.

CLERODENDRON infortunātum.

Unlucky Clerodendron.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. VERBENACEÆ.
CLERODENDRON. *Bot. Reg. v.* 5. *fol.* 406.

C. *infortunatum;* foliis maximis subrotundis altè cordatis dentatis suprà pilosis subtùs tomentosis, paniculâ coloratâ simplici pubescente, floribus apice ramorum subsessilibus, calyce ampliato quinquefido, corollæ laciniis planis obovatis obtusis staminibus paulo brevioribus.
C. infortunatum, *Linn. fl. Zeyl.* 232.

Whoever shall investigate the true distinctions between the beautiful species of Clerodendron with scarlet inflorescence, will find as ample a harvest of confusion to be reaped as he can desire. We cannot pretend to do more than point out some of the instances to which we refer.

Linnæus founded this species upon a Ceylon plant in Burmann's Herbarium, with a specific character that applies very well to this plant, and a description which leaves no doubt upon our minds that we have now before us what he intended, which was sent from Ceylon to His Grace the Duke of Northumberland by Mr. Nightingale, and which flowered at Syon in August, 1843. But Linnæus quoted as a synonym the *Petasites agrestis* of Rumphius, which is quite a different species, and added as a variety the plant represented at t. 29 of the *Thesaurus Zeylanicus,* which is also different, and probably what Dr. Wallich distributed under the name of Clerodendron infortunatum. The true characters of the species seem to lie in its very large flowers, which are clustered in little heads at the end of the principal branches of inflorescence, and in the large leafy-coloured calyx, which is *half* split into five segments.

Nearly allied, but very different, is the *Clerodendron squamatum,* figured in this work at p. 649. That plant has

leaves with a similar form, but they are smaller, have no broad toothing at the margin, and are covered beneath with depressed scaly glands instead of down: whence the name. Its flowers are very much smaller, and are not collected into small clusters, but are long-stalked and racemose at the end of the panicle-branches. The following definition will distinguish it.

C. *squamatum* (Vahl. Symb. 2. 74. Bot. Reg. t. 649); foliis subrotundis altè cordatis supra pilosiusculis subtùs densè glanduloso-squamatis, paniculâ coloratâ compositâ pilosiusculâ, floribus (minoribus) apice ramorum racemoso-corymbosis, calyce ampliato 5 fido, corollæ laciniis obovatis revolutis staminibus pluriès brevioribus.

This is probably the *C. coccineum* of some gardens, as it certainly is the *Volkameria Kæmpferiana* of Jacquin.

But there is now cultivated in the gardens of this country, under the name of Clerodendron squamatum, quite a different plant, resembling C. infortunatum in the form of its leaves, and having no glandular scales on their underside, in place of which is an abundance of soft-jointed hairs. It also differs from both species in its calyx, (represented at fig. 2. of the accompanying plate,) which instead of being enlarged and half divided into five parts, is very small, and has five shallow teeth. Its flowers are smaller than in C. infortunatum, and larger than in C. squamatum. This may be named C. fallax, inasmuch as it might be mistaken by an incautious observer for either of the two species above mentioned. We have it from the rich collection of Syon, and we propose the following definition.

C. *fallax*; foliis subrotundis altè cordatis subdentatis supra pubescentibus subtus mollibus, paniculâ coloratâ compositâ pilosiusculâ, floribus apice ramorum corymbosis, calyce minimo 5-dentato, corollæ laciniis obovatis planis staminibus paulò brevioribus.

There is also in English gardens a Clerodendron, absurdly called speciosissimum, which must not be omitted in noticing these plants. It has ovate leaves, not at all cordate, but rather truncate at the base, with few hairs on either side, and no glands; its flowers are in dense heads like those of C. fragrans, about the size of C. squamatum, and are sur-

rounded by long narrow permanent bracts, which usually have one or more oval glandular spaces on their surface; the calyx is not enlarged, but its teeth are extended into long narrow tongues. In foliage, in resembles C. trichotomum, but its inflorescence and calyx are quite dissimilar. It may be called C. glandulosum, and thus defined.

C. *glandulosum;* foliis subrotundo-ovatis basi truncatis v. parùm cordatis pilosiusculis esquamatis subdentatis, paniculâ densâ capitatâ, bracteis lineari-lanceolatis calyce longioribus dorso glandulâ unâ alterâve pellucidâ immersâ notatis, calycis 5-fidi laciniis acuminatis, corollæ laciniis oblongis reflexis staminibus brevioribus, stylo longissimo.

The singular name *C. infortunatum* originated with Linnæus, who called another species *fortunatum*, and another *calamitosum.* According to De Théis this was in consequence of *C. fortunatum* being useful in medicine, while *C. infortunatum* and *calamitosum* are dangerous.

The plant before us is a truly splendid species, and will be a great addition to a Botanical collection, as it is a very free-growing plant.

It is a stove shrub, which will succeed best from a cutting struck in autumn, and kept in an intermediate house until the beginning of February, when it should be repotted and induced to grow. The soil should consist of peat and sandy loam, and if a mixture of well decomposed cow-dung is added so much the better. In the summer season an ample supply of water should be given, and the atmosphere kept as moist as possible. This plant differs from many others in not requiring to be topped; nor does it need to be grown in a high temperature, which is apt to render it tall and unsightly.

Fig. 1. is the calyx of C. infortunatum; fig. 2. of C. fallax.

ERIA floribunda.

Many-flowered Eria.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ. § MALAXEÆ.
ERIA. *Lindl. supra, vol.* 15. *fol.* 1654.

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§ Tonsæ; *perianthio glabro v. parùm pubescente.*

E. *floribunda* (Tonsæ) (Lindl. in Wall. Cat. no. 7408. Bot. Reg. 1843, misc. 56. 1844, t. 20.); caulibus carnosis subflexuosis teretibus, foliis lanceolatis acuminatis, racemis oppositifoliis patulis multifloris pubescentibus foliis brevioribus, bracteis defloratis ovatis concavis retrorsis, sepalis petalis 3-plò latioribus, labello angusto nudo basi saccato: laciniis lateralibus ascendentibus abbreviatis intermediâ cuneatâ tridentatâ.

Labellum *basi cyathiforme, melliferum, bidentatum,* columnæ *adpressum, sursum unguiculatum, cuneatum, apiculatum, inflexum, columnâ paulò brevius.*

Although the flowers of this plant cannot boast of large size and rich colours, they are by no means destitute of beauty. Arranged as they are in long drooping racemes, glassy in texture, and delicately touched with crimson, they are among the prettiest of the smaller kinds.

It is a native of Sincapore, whence it has been received by Messrs. Loddiges.

Along with *E. polyura, bipunctata, profusa,* and some others, it forms a small group of species, which are very different in habit from such plants as *E. pannea, armeniaca,* &c.

Fig. 1. represents the column and lip seen in profile; 2. shows the pollen-masses adhering at their points by a granular mucilaginous substance.

It is a stove plant, and succeeds best when potted in turfy peat, mixed with a few potsherds. During the summer a liberal supply of water should be given, and the house be kept as moist as possible. In sunny weather the plant will

be much benefited if slightly shaded, for although it enjoys a high temperature, yet its leaves will become pale and contracted if too much exposed to the rays of the sun. In winter very little water is required, especially if the house can be filled with steam once a day, which is always preferable to syringing.

*TROCHETIA grandiflōra.

Large-flowered Trochetia.

MONADELPHIA *POLYANDRIA*.

Nat. ord. BYTTNERIACEÆ.

TROCHETIA, D. C. *Involucellum* nullum. *Calyx* quinquepartitus, foliolis lanceolatis, æstivatione valvatis. *Corollæ* petala 5, hypogyna, obovato-subrotunda, æstivatione convolutiva, decidua. *Stamina* 15-30, hypogyna, basi in urceolum connata, quinque v. septem sterilia, ligulæformia, integra v. irregulariter bifida, cum duobus v. tribus fertilibus brevissimis alternantia; *filamenta* subnulla; *antheræ* introrsæ, biloculares, erectæ, loculis longitudinaliter dehiscentibus. *Ovarium* sessile, quinqueloculare. *Ovula* in loculorum angulo centrali plura, biseriatim adscendentia, anatropa. *Stylus* terminalis, filiformis; *stigma* obtusè quinquelobum. *Capsula* quinquelocularis, loculicidè quinquevalvis, valvis medio septa margine seminifera gerentibus. *Semina* plurima, subrotunda, aptera. Embryo . . . .——Arbusculæ *borbonicæ et madagascarienses, ferrugineo-lepidotæ; foliis alternis, petiolatis, ovatis v. ovato-lanceolatis, coriaceis, penninerviis, integerrimis,* pedunculis *axillaribus unitrifloris.* Endlicher genera, no. 5351.

T. *grandiflora;* foliis ovalibus acutis subdentatis, pedunculis 3-4-floris, petalis calyce longioribus.

This noble plant was introduced by His Grace the Duke of Northumberland from the Mauritius, and flowered at Syon in December last. Its name is probably one of M. Bojer's, but it has not yet found its way into any of the modern compilations of species. The plant at Syon is a seedling, about six feet high; when struck from cuttings it will probably become bushy, in which case it will be very beautiful, as it appears to be a free flowerer.

The blossoms are snow-white, with a yellow blotch at the base of each petal, and are nearly three inches in diameter. Their pendulous position, which occurs in all the known

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* So named by DeCandolle in honour of M. Dutrochet, the celebrated French physiologist.

species of the genus, gives them a peculiarly graceful appearance.

According to Endlicher and DeCandolle the stamens are, in the other species, collected into a small cup; but here at least they are united into a column, and arranged on each side of the sterile filament, so that in fact the filaments form five parcels, or phalanges, each consisting of four fertile stamens adhering, two on each side, to a central sterile one; as is represented at fig. 1.

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PHLOMIS Cashmeriāna.

Cashmere Phlomis.

DIDYNAMIA *GYMNOSPERMIA.*

Nat. ord. LABIATÆ. § STACHYDEÆ.
PHLOMIS. L.—Supra, fol. 1289.

P. *Cashmeriana;* herbacea, erecta, caule densè floccoso tomentoso, foliis ovato-lanceolatis obtusis versus apicem crenatis basi latè rotundatis molliter rugosis supra pubescentibus villosisve subtùs densè albo-tomentosis, bracteis subulatis ciliatis calyce longioribus, calycis floccoso-lanati dentibus subulatis rigidis patentibus pilosis. *Bentham. Gen. & Sp. Lab. p.* 630.
P. Cashmeriana, *Royle Illustr. p.* 303. *fig.* 75 A. *fig.* 1.

To those who possess no greenhouse this good-looking plant, from the valley of Cashmere, will be welcome; for its large pale lilac flowers remain for a considerable time in beauty.

It is a hardy perennial plant, growing about two feet high, and flowering in July and August. It requires a rich light soil, and a situation which is rather dry in winter.

It is increased, when the plants are old, by dividing the roots in spring, or from seeds; but it grows slowly when young, and will not flower before the second year after the seed is sown.

Our drawing was made in the garden of the Horticultural Society, where it was raised from seeds received from Dr. Royle.

SCHOMBURGKIA crispa.

Crisp-flowered Schomburgkia.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ. § EPIDENDREÆ.

SCHOMBURGKIA, Lindl. Sertum Orchidaceum, t. x. *Sepala* et *petala* conformia, patentia, omninò libera, basi æqualia. *Labellum* difforme, membranaceum, trilobum, semicucullatum, basi cum margine columnæ connatum, supra basin tumidum (intrusum): venis lamellatis. *Columna* alata. *Pollinia* octo.——Rhizoma *repens, nudum, annulatum, pseudobulbigerum.* Pseudobulbi *magni, elongati,* 2-3-*phylli.* Folia *coriacea.* Scapi *terminales vaginati.* Bracteæ *magnæ, siccæ, spathaceæ.* Flores *speciosi, racemosi, congesti.*

S. crispa, *Lindl. in Sert. Orchid. t.* 10.

This fine genus is remarkable for the large size of its pseudo-bulbs, which are occasionally as much as two feet long. It differs from Epidendrum and its allies in having eight pollen-masses, and evidently constitutes an extremely well marked group. But its species have been little examined except in a dried state, for which their fleshiness renders them ill-suited, and hence a difficulty in determining their true limits. It is hoped that the enumeration, at the end of this article, will render their distinctions clearer.

For the opportunity of figuring this we are indebted to Mrs. Marryat, who received it from Mr. Schomburgk himself. Its yellow-brown flowers distinguish it from all the others.

In cultivation it demands the same treatment as many of the genus Cattleya. It may either be potted in turfy peat in the usual way, or it may be tied to a block of wood (with a little sphagnum to retain moisture) and suspended to a rafter in a stove. In any case, care should be taken not to water over head when the plant is in a growing state, otherwise the glutinous substance on the scales which surround the young shoots will retain the water and cause them to damp off. In summer the plant should be slightly shaded, and the house kept as moist as possible at a temperature of 80° by day, and about 68° at night. In winter, when little water is required, the temperature need not be raised above 56° by artificial means.

Fig. 1. represents the lip; 2. the column seen in profile.

The species of Schomburgkia are,—

1. S *crispa* (Lindl. in Sert. Orchid. t. 10. Bot. Reg. 1844. t. 23. S. *marginata, var.* Hooker in Bot. Mag. t. 3729.); pseudobulbis fusiformibus, floribus racemosis, bracteis ovario subæqualibus, labello ovato-oblongo obtuso vix cucullato obsoletè trilobo sepalis petalisque oblongis crispis subæquali: lamellis 5 undulatis duabusque lateralibus tenuibus rectis.——*Demerara.*——This plant has yellowish brown flowers, with scarcely a trace of purple; and by that circumstance alone it may be distinguished. Its lip is nearly flat, very little three-lobed, and broadest at the base: other characters peculiar to itself. Although the author of the species, I must plead guilty to having on one occasion, (Bot. Reg. misc. Feb. 1839) confounded it with S. marginata, and thus misled Sir Wm. Hooker, whose figure in the Bot. Magazine, t. 3729, undoubtedly belongs to this species. Probably the colours in the Sertum, taken from a drawing by Mr. Schomburgk, are much too yellow.
2. S. *marginata* (Lindl. in Sertum Orchid. t. 13.); pseudobulbis clavato-fusiformibus, floribus racemosis, bracteis ovario subæqualibus, labello ovali acuto basi angustato trilobo parùm cucullato sepalis petalisque oblongis undulatis subæquali, lamellis crispis 5 continuis lateralibus interruptis.——*Surinam, Demerara.*——Formerly in cultivation, but now lost; unless the "Spread Eagle" plant of Jamaica should prove to be it. It differs from S. crispa in its flowers being distinctly purple, with only a little yellow at the edge of the sepals and petals, and in the form and appendages of the lip, which tapers to the base, is very distinctly three-lobed, has an acute oval middle lobe, and is furnished with wavy plates, which are broken up at the sides.
3. S. *undulata* (Lindl. in Bot. Reg. 1844. misc. 21.); pseudobulbis fusiformibus, floribus dense racemosis, bracteis longissimis spathaceis, sepalis petalisque æqualibus linearibus undulato-crispis labello longioribus, labelli cucullati lobis lateralibus rotundatis intermedio ovali acuto v. obtuso, lamellis 5 undulatis duabusque lateralibus rectis tenuibus.——*La Guayra.*——This has fine rich brownish purple sepals and petals, and a clear violet-purple lip. From S. crispa and marginata, it is distinguished by its very long narrow crisp sepals and petals. The flowers are as large as those of S. tibicinis, but the inflorescence is quite different. There is no yellow in them, and the lip is distinctly curved up towards the column. Some fine specimens have been lately flowered by Mrs. Lawrence, one of which has browner flowers, and the middle lobe of the lip wedge-shaped and obtuse, not oval and acute; but they do not otherwise seem to differ. The very long narrow crisp sepals and petals render this very obviously different from the two last, which it quite resembles in habit.
4. S. *tibicinis* (Bateman. Orch. Mex & Guat. t. 30. Lindl. in Bot. Reg. 1841. misc. 119. *Epidendrum tibicinis,* Bateman in Bot. Reg. 1838. misc. 12.); pseudobulbis conicis corniformibus annulatis sulcatis 3-phyllis, foliis oblongis coriaceis patentibus, scapo longissimo tereti distanter squamato apice paniculato, paniculâ pyramidali laxiflorâ, sepalis petalisque undulatis crispis, labello oblongo cucullato venis per medium 5 elevatis approximatis: laciniis lateralibus apice rotundatis intermediâ subrhombeâ emarginatâ, antherâ emarginatâ.——*Honduras.*——This noble plant is the cow's-horn orchis of Honduras. The flowers when fully expanded are about two and a half inches wide, deep pink speckled with white on the outside, rich chocolate red within. The lip is white in the middle, but deep rose-colour at the sides, with a short chocolate-red middle lobe. The flowering stem is eight or nine feet long. Its pseudo-bulbs, between one and two feet long, are quite hollow, and as smooth inside as the chamber of a Bamboo; at their base there is always a small hole, which leads to the interior, and furnishes access to colonies of ants, which are constantly found inhabiting the plant.

CYMBIDIUM pendŭlum, *var.* brevilābre.

Short-lipped thick-leaved Cymbidium.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ. § VANDEÆ.

CYMBIDIUM. *Botanical Register, vol. 7. fol.* 529.

C. *pendulum* (Swartz. nov. act. ups. 6. 73. Willd. Sp. pl. 4. 101. Roxb. Fl. Ind. 3. 458. L. p. 165. Bot. Reg. 1840. t. 25. *C. crassifolium,* Wall. Cat. no. 7357. *Epidendrum pendulum,* Roxb. corom. plants, 1. 35. t. 44.); foliis ensiformibus distichis coriaceis obliquè obtusis, racemis pendulis multifloris, bracteis minutis, petalis sepalisque lineari-oblongis obtusis, labelli trilobi lobis lateralibus acutis intermedio oblongo apiculato: lamellis continuis approximatis apice confluentibus.

Var. *brevilabre;* labello latiore lobis lateralibus acutioribus intermedio subrotundo-oblongo. *Bot. Reg.* 1844. *misc.* 67.

Having already figured this plant, it may perhaps be thought that the variety now given is too trifling to deserve a separate representation. We are however rather anxious to shew that when these Orchidaceous plants do run into ordinary varieties, it is only within recognizable limits, as happens in other plants, and that the masquerading dress under which such plants as Catasetum and Cycnoches occasionally appear, are not, as some suppose, to be taken as indications of a disposition to vary, which throws suspicion upon all specific distinctions in the order.

As far as our experience goes, the ordinary variations to which Orchidaceæ are subject, are in all respects analogous to what is met with in other plants, and as is exemplified by the plant before us from Sincapore, in which, while the lip becomes shorter, broader, and with a much blunter middle lobe, every thing else remains so exactly the same, that nobody can entertain a doubt about the specific identity of the plant with Cymbidium pendulum. The vertical plates of the lip, in particular, are quite unchanged, shewing, as we find it always shewn, that the elevations and processes of the surface of the lip are of the utmost importance in considering the limits of species. Eria bractescens and longilabris, published in the present number, t. 29, furnish the converse of the rule. They are much alike, and their labella vary in form in a manner not unlike that of C. pendulum and C. p. brevilabre;

but with a change in the form of the lip occurs in these plants a most material alteration in the form of the labellar processes, and both are connected with other peculiarities in the appearance of the two species.

The variations that experience tells us occur in the structure of the same species of tropical Orchidaceæ are principally in colour and size, just in fact as happens in those of Europe. Our common wild Orchises have purple or white flowers indifferently, and in some specimens they are much larger than in others, as is more particularly shewn by Orchis latifolia. Just so with the epiphytes. The flowers of Catasetum tridentatum, for instance, are spotted or quite green, and much larger in some varieties than in others. The well known Oncidia ornithorhynchum and ampliatum exhibit great differences in the size and depth of colour of their flowers; so do Lycaste Skinneri and Cattleya Forbesii; indeed, if one can judge from Mr. Hartweg's collection, it is very common for species found on the west of the Cordilleras to have much smaller flowers than when they occur on the east side. As to differences in form again, the greater or less breadth of the petals and the lobes of the lip is very uncertain in Orchis militaris and its allies; and in the same way Catasetum tridentatum, Cyrtochilum maculatum, and other epiphytes differ among themselves. But so far as is yet known, there is nothing peculiar in the tendency to variation among tropical Orchidaceæ, beyond what we find in all other plants, with the exception, as we have already said, of the masquerading species of Catasetum and Cycnoches.

The plant now figured was drawn in July 1842, from a specimen, received by Messrs. Loddiges from Mr. Cuming, who found it at Sincapore. Fig. 1. represents the lip and its peculiarities.

It should be grown in turfy heath-mould, of rather closer texture than that commonly used for Orchidaceous plants. The pot should be well drained, in order that all superfluous water may pass off freely, otherwise the roots will perish. Like some other species of the genus, this requires an ample supply of water at all times; and the atmosphere to be kept as moist as possible, especially during the growing season. To prevent the leaves from being scorched, the house should be slightly shaded in sunny weather. In summer the temperature should never be allowed to rise much above 80° by day, nor to fall below 68° at night; but in winter it should never be raised higher than 64° by artificial means.

MACLEANIA longiflora.

Long-flowered Macleania.

MONADELPHIA *DECANDRIA.*

Nat. ord. VACCINIACEÆ.

MACLEANIA. *Calyx* truncatus obsoletissime 5-dentatus, 5-alatus, infernè ovario adhærens. *Corolla* cylindracea, limbo 5-fido. *Stamina* decem basi corollæ inserta, filamentis per totam longitudinem in urceolum connatis. *Antheræ* basi affixæ, dorso muticæ, apice in tubum simplicem attenuatæ et rimula singula introrsum dehiscentes. *Ovarium* 5-loculare, multiovulatum. *Fructus* :—Bacca ?—Frutex *habitu* Thibaudiæ *vel* Ceratostemmatis. Flores *numerosi axillares secundi.* Folia *subsecunda.* Rami *cortice deciduo.*—Hooker Ic. 2. t. 109.

M. *longiflora ;* foliis sessilibus ovali-oblongis obtusis reticulatis obsoletè triplinerviis, axillis trifloris, corollis cylindraceis angulatis concoloribus.

When Sir William Hooker named a plant Macleania, he not only paid a well-merited compliment, for few British merchants have deserved better of Botany than Mr. John Maclean of Lima, but he founded a good genus. A less accurate observer might indeed have referred it to Thiebaudia, a group of plants from the same countries, and very similar in habit ; but each anther of Thiebaudia is divided into two long tubes, which open at their point ; while, on the contrary, in Macleania the anthers have only one tube each.

The plant now described is very near M. angulata, figured in the Botanical Magazine, t. 3979, and said to be from Peru. But that species has shorter and broader leaves with manifest stalks, and the flowers are also shorter, contracted at the orifice, and yellow there. Their colour, too, is represented as much more vivid than in our species.

A warm greenhouse shrub, which requires to be kept in an intermediate house during winter. It may be potted in a compost, consisting of sandy loam and peat in equal proportions. Owing to its producing very fleshy roots, a large pot or tub will be required, or where there is convenience it is

probable it would succeed well if planted out in a conservatory. It requires a liberal supply of water in summer, but very little in winter. To have this plant well furnished with young wood from the bottom for flowering, it is necessary to cut it well back early in autumn, in order to have the plant clothed with leaves before winter. It is rather difficult to multiply, but may be managed under a bell glass in a bottom heat of 80°.

Note by Mr. Hartweg.

This is one of the numerous fleshy-rooted vaccinaceous shrubs, frequently met with in dry and exposed situations in the Andes; the present species has been collected on the main Cordillera near Loxa, (4° S.) at an elevation of about 8,000 feet above the sea, where it forms a neat compact evergreen shrub, five feet high, and is called by the inhabitants Salapa.

BERBĔRIS tenuifolia.

Thin Ash-leaved Berberry.

HEXANDRIA *MONOGYNIA.*

Nat. ord. BERBERACEÆ.
BERBERIS. Supra, vol. 17. *fol.* 1425.

B. *tenuifolia;* foliis pinnatis ternatisque, foliolis distantibus lanceolatis acutis tenuibus planis integerrimis racemis laxis cernuis multifloris brevioribus.
B. tenuifolia, *Lindl. in Bot. Reg.* 1838. *misc. no.* 121.
B. fraxinifolia, *Hook. ic.* 4. 329. 330. 1841.

This very rare plant was found by Mr. Hartweg, on his first arrival in Mexico, at a place called Zaquapam, at the foot of Orizaba, and was raised among the first collections that he sent to the Horticultural Society. Considering the warm climate of which it is a native, it was expected to prove tender, and the event has shewn it to be so; for we have no species yet in our gardens so impatient of cold. In fact, it must be regarded strictly as a greenhouse plant, to which any amount of frost would be fatal.

It is a hard-wooded graceful plant, very apt to run up with a single stem, without producing lateral buds, and when that is allowed to happen, its beauty is much impaired. For some time, indeed, it remained in that state in the large conservatory of the Horticultural Society. At last, by binding it down, so as to check the rise of the sap, the lateral buds were enabled to expand, and now the specimen is well furnished with branches, and is above six feet high.

Its flowers appear in the latter part of the year (October to December), and are agreeably sweet-scented.

So far as experience has gone, it appears to be the most easily propagated by cuttings of the half ripe wood, or by grafting on B. aquifolium. For soil it seems to like sandy loam and peat.

Note by Mr. Hartweg.

A Mexican plant from the eastern declivity of Orizaba, near the sugar farm of Zaquapam, at an elevation of 3,000 feet above the sea, where it is found, though not very plentifully, in the outskirts of the woods bordering on the savannahs, attaining the height of ten feet.

27

* LINDLEYA mespiloïdes.

Medlar-like Lindleya.

ICOSANDRIA *PENTAGYNIA.*

Nat. ord. ROSACEÆ. § QUILLAJÆ, *Endl.*

LINDLEYA. *Calyx* tubo turbinato, limbo quinquepartito. *Corollæ* petala 5, calycis fauci inserta, eiusdem laciniis alterna, brevissime unguiculata, patentia. *Stamina* 15-20, disco annulari calycis faucem marginanti inserta; antheræ lanceolatæ, basi uncinato-reflexæ, cruribus inæqualibus, connatis, biloculares. *Ovaria* 5, in unicum quinqueloculare coalita. *Ovula* in quovis loculo 2, collateralia, infra apicem affixa, pendula. *Styli* 5, terminales; *stigmata* subclavata. *Capsula* calyce persistente suffulta, ovato-pentagona, lignosa, quinquesulcata, quinquelocularis, loculicide quinquevalvis, loculis di- v. abortu monospermis. *Semina* margine membranaceo cincta . . . .——Arbor *mexicana, glaberrima ;* foliis *sparsis, simplicibus, integris, crenulatis,* stipulis *petiolaribus geminis,* floribus *ad apicem ramulorum axillaribus, solitariis, pedunculatis, bracteatis, albis.* Endl. gen. no. 6399.

L. mespiloides, *Humb. Bonp. Kunth. nov. gen. pl.* 6. 239. *t.* 562. *bis. DeCand. Prodr.* 2. 548.

Semina *ovalia, tenuia, alata, testâ mucilaginosâ vesiculosâ.* Cotyledones *tenues, planæ.* Radicula *conica, exserta, hilo proxima.*

This plant is an evergreen tree of small size, looking very much like Mespilus grandiflora, but with flowers as sweet-scented as the Hawthorn bloom. It belongs to a small set of Rosaceous plants, of which one, the Kageneckia cratægifolia, has been already figured at t. 1836 of this work. The late Professor Don attempted to distinguish them as a peculiar natural order, but unwisely, and on erroneous grounds. That they are really nothing more than Rosaceous plants is proved by this plant grafting readily on the common Thorn and the larger kinds of Cotoneaster ; in which way it is propagated.

But although Lindleya and its allies are by no means to be separated from Rosaceæ, they form a peculiar group, remark-

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* Named thus by Humboldt and Kunth, in the year 1823, after the present editor of the Botanical Register.

able for their capsular fruit and winged seeds, the latter a circumstance not hitherto observed in other plants of the order.

The botanical peculiarity of the present genus consists in its carpels joining together at the very base into a solid pistil, although their upper halves, as well as the styles, are entirely distinct. And so, in like manner, when the fruit is ripe, it becomes a hard capsule, the thick bony lobes of which separate freely at the upper half, but not at the lower, without violence. Fig. 3. represents it when ripe ; 1. in the young state, when some of the stigmata are entire, and others two-lobed ; 2. shews one of the thin-winged seeds hanging to the side of one valve of the capsule.

In our gardens the plant seems likely to prove about as hardy as an Escallonia, but not more so. Its fine evergreen foliage, and large sweet flowers render it very desirable that it should be able to bear our climate.

The accompanying drawing was made in the garden of the Horticultural Society in July 1843. It remains in flower for a month or six weeks.

Note by Mr. Hartweg.

An evergreen slender-growing shrub, 12 to 15 feet high, from the natural bridge called Puente de Dios, 45 miles N.E. of Real del Monte, growing at an elevation of 6,500 feet above the sea. It also occurs sparingly near the Hacienda de Santa Ana, in the State of Oaxaca, always preferring a dry chalky soil.

I never found it in flower.

28

HIBISCUS Cameroni-fulgens.

Garden Variety.

A specimen of this fine plant was sent us in August 1843, by Messrs. Rollissons, of Tooting, who state that it is a hybrid, between Hibiscus Cameroni and H. fulgens. H. Cameroni is a Madagascar shrub, with heartshaped 5-lobed leaves, buff flowers, with five deep crimson spots in the eye, and a very small involucre; H. fulgens is a garden name for a variety of H. Rosa Sinensis.

The produce of these two is the very handsome variety now figured, which, as might have been anticipated, proves worthy of so beautiful a parentage.

We presume it to be a stove shrub.

ERIA bractescens.

Long-bracted Eria.

GYNANDRIA *MONANDRIA*.

Nat. ord. ORCHIDACEÆ. § MALAXEÆ.
ERIA. *Botanical Register, vol.* 11. *fol.* 904.

§ Tonsæ; floribus calvis v. parum pubescentibus.

E. *bractescens* (Lindl. in Bot. Reg. 1841. misc. 46.); pseudobulbis brevibus oblongis apice subdiphyllis, foliis oblongis undulatis basi angustatis racemis subæqualibus, bracteis membranaceis coloratis margine revolutis superioribus linearibus reflexis, racemis erectis, labelli trilobi lamellis duabus abbreviatis intermediâ productâ lobo medio truncato rugoso obtusè apiculato.

Among the extensive genus Eria we find a few species particularly distinguished by their short fleshy stems, and the membranous coloured bracts which accompany their hairless flowers. Of these the best known are the present species, *longilabris*, *obesa*, and a Philippine plant that may be called *ovata*. They are natives of the hotter parts of India, and are so much alike that an incautious observer might almost regard them as varieties. They are, however, most truly distinct, as the following definitions of them will shew.

1. E. *bractescens*.

Mr. Cuming found this at Sincapore, and Mr. Griffith in Burma, near Moulmain. It has a fleshy oblong stem, which bears at the summit two or three leaves, from one and a half to two inches broad, and gradually tapering to the base. Its flowers are in the Sincapore plant greenish white, with a lip crimson except at the end; in the Burma plant they are more straw colour than green. The lip is three-lobed, has an abruptly truncated extremity, and is marked with three elevated ridges, of which the two side ones are very short, while the middle one reaches to the end of the lip. Fig. 1. shews this structure, and fig. 2. the pollen-masses.

2. E. *longilabris* (Lindl. in Bot. Reg. 1841. misc. 69.); Eriæ bractescentis facie sed sepalis petalisque magis acuminatis, labelli trilobi lamellis tribus ad apicem ferè pro-

ductis æqualibus lateralibus abbreviatis lobo medio ovato acuminato.

This is a native of Panay in the Philippines, whence it was sent to Messrs. Loddiges by Mr. Cuming. It is very like Eria bractescens, but is a much finer species, and bears more flowers. It is distinguished at once by its lip, which is not truncate, and has three equal wavy ridges prolonged almost as far as the tip of the middle lobe, which is long and acuminated. The form of the lip is shewn at fig. 3.

3. E. *obesa* (Lindl. in Wall. Cat. no. 1976. Gen. & Sp. no. 15.); foliis . . . ., caulibus crassis ovalibus, sepalis petalisque lanceolatis acutis subglabris, labelli trilobi ecallosi lobis lateralibus obsoletis rotundatis: intermedio ovali retuso, racemis paucifloris pubescentibus, bracteis ovato-lanceolatis pedicello capsularum longissimarum vix æqualibus.

This was originally taken up from imperfect Martaban specimens in Dr. Wallich's herbarium. It was afterwards met with at Moulmain and Merquy by Mr. Griffith; always however without leaves. The pseudo-bulbous stems are about twenty-seven inches long; the bracts ovate, reflexed, greenish dull purple; the flowers white with a tinge of pink, and a yellow lip; they are arranged in short spreading racemes.

4. E. *ovata;* foliis oblongis obtusis basi angustatis, racemis pubescentibus multifloris, bracteis parvis ovalibus reflexis, sepalis petalisque acuminatis, labello ovato-oblongo indiviso basi bicalloso.

This plant, found in the Philippines by Mr. Cuming, evidently differs from the three others in the shape of the lip, which has no lobes, but an ovate-oblong form and a couple of little diverging plates near the base. It is nearest to E. longilabris in general appearance.

All these should be potted in turfy heath-mould, mixed with a few pieces of potsherds. Water should be liberally given during the growing season, and the atmosphere kept as humid as possible. In sunny weather the house should be slightly shaded, for although this plant succeeds well in a high temperature, it is soon injured by the rays of the sun. In winter very little water is required, and where steam cannot be admitted a slight syringe over head will be sufficient for two or three months.

LÆLIA majālis.

The May-flower Lælia.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ. § EPIDENDREÆ.
LÆLIA. *Lindl. supra*, 1839. *misc.* 42.

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§ 1. Grandifloræ; *Petals distinctly larger than the sepals.*

L. *majalis;* folio angusto scapo bifloro æquali, bracteis membranaceis ovatis, sepalis lanceolatis, petalis oblongo-lanceolatis duplò latioribus, labelli lobo medio rotundato emarginato plano lateralibus parvis obtusis.

L. majalis, *Lindl. in Bot. Reg.* 1839. *misc.* 42. *Bateman, Orch. Mex. & Guat. t.* 23.

Cattleya Grahami, *Lindl. Gen. & Sp. Orch. p.* 116.

The history of this charming plant is so well given by Mr. Bateman, that we beg to extract it from his magnificent work on the Orchidaceæ of Mexico and Guatemala.

"This lovely plant abounds in the most temperate parts of Mexico, where its exquisite beauty has rendered it a prime favourite with the natives, from whom it has received the familiar appellation of 'Flor de Mayo.' It does not however appear to have been long known to botanists, Dr. Schiede having been the first to send specimens to Europe, which, through the liberality of Professor Schlechtendahl have been extensively distributed. Living plants were first obtained by Mr. Barker from Oaxaca through the instrumentality of Mr. Ross: and more recently, a large supply has been received by the Horticultural Society of London, collected by Mr. Hartweg in San Bartolo, in situations so elevated, that the temperature sometimes falls below the freezing point. This habitat, so unusual for an Orchidaceous plant, will go far to explain the ill success that has hitherto attended its cultivation, for while it is comparatively easy to imitate the close and humid atmosphere in which most of the tribe are found, it is infinitely more difficult to provide a substitute for the pure air and frequent changes of temperature in which these mountain epiphytes

would seem to delight. Indeed, so signal, in the case of Lælia majalis, has been failure of even the most experienced cultivators, that although there was scarce a collection that did not contain one or more specimens of the plant, still did it obstinately refuse to flower, except in the solitary instance about to be described, when it yielded to the skilful treatment of Mr. Dillwyn Llewelyn, of Penllergare, who has favoured us with the following note :—

" 'This plant was purchased,' says Mr. Llewelyn, 'about three years since from M. Deschamps, and soon afterwards potted in very rough fibrous peat, being kept nearly dry in a cool plant house, until its new buds began to swell, when it was removed to a hot and damp stove, kept exclusively for Orchidaceæ. Water was regularly given until its buds had acquired their full size, when it was discontinued by degrees, and the plant carried back to a lower temperature. This treatment has been repeated, and under it the entire genus seems to thrive, although, perhaps, from the vigour of some specimens of L. anceps and L. autumnalis, which I have attached to pieces of rough barked wood (with a little peat tied round the root) I should prefer that course of treatment to the more usual one of potting them.'

" The mode pursued by Mr. Llewelyn is certainly the only one under which success can be expected ; but there is yet a point to be gained, for while the specimens at Penllergare, however beautiful, consisted of only a solitary flower, in a wild state three or four are borne upon a spike."

The method of managing the plant in the Gardens of the Horticultural Society is as follows.

It is tied to a block of wood and suspended to a rafter in a moist stove. When removed from one block to another, which is sometimes necessary, it will be found beneficial to place a slice of turfy peat or a small quantity of sphagnum between the wood and the roots of the plant, this retains moisture in summer so that less syringing is required. The quantity of water necessary for it on the bare block of wood would prove injurious to plants in pots below it. In the growing season the temperature does not exceed 80° by day nor does it fall below 70° at night. In winter 56° with fire heat is quite sufficient.

CEREUS crenatus.

Crenated Torch Thistle.

ICOSANDRIA *POLYGYNIA.*

Nat. ord. CACTACEÆ.

CEREUS. *Botanical Register, vol.* 4. *fol.* 304.

§ 7. Alati, *Pfeiffer.*

C. *crenatus;* ramis strictis compressis biconvexis margine exactè crenatis omnino viridibus, floribus maximis candidis, stigmate 9-radiato.

A most remarkable plant, belonging to the winged section of Torch thistles, according to Pfeiffer, which Link regards as a peculiar genus and calls Phyllocactus. It is the finest thing yet known of its class with white flowers, and will doubtless prove invaluable as a breeder; for its habit is beautiful, to say nothing of its magnificent flowers, which rival the night-flowering Cactus, but open in the day time. When produced last month at the exhibition in the Horticultural Society's Garden, it received the highest medal offered for new plants. Let us only imagine a cross between it and C. speciosissimus or Ackermanni!

For the following information concerning it we are indebted to Mr. Booth.

This fine species, with several others, was forwarded from Honduras in 1839 by George Ure Skinner, Esq. and presented to Sir Charles Lemon, Bart. M. P. with whom it flowered at Carclew in May 1843. Although similar in some respects to *Ep. latifrons* of Botanical Magazine, fol. 2692,* it proves to be perfectly distinct and far more desirable, on account of its flowers opening in the day time and continuing expanded for nearly a week, whilst those of the one referred to open in the evening, are in perfection at midnight, and finally close a little before sunrise. It is also proper to state that in addition to their other recommendations the flowers of this species are deliciously fragrant, which will no doubt render it a most valuable acquisition to the admirers of this singular tribe of succulents.

The plant grows about two feet high with large spreading branches, some of which in their young state are round and angular, with bristly hairs at the joints, resembling the young shoots of Cereus speciosissimus. Their most usual form,

*= Ph. Hookeri. – vide Schumann

however, is flat and broad, tapering a little at the base, where they are round, hard, and woody. The flat part is remarkably thick and leathery, from one to two feet long, and about two and a half or three inches wide, of a rich deep green, with large crenatures along the margin, from which it gradually thickens towards the midrib which is prominent from the base to the point. The *flowers* are produced at the first or second sinus from the apex of the leaf, or shoot, on which several buds make their appearance, but only one of them comes to maturity. The *tube* is round, and about four inches long, slightly curved and angular, with three or four series of elevated, ovate-acuminate, brownish green scales on the outside, each of which are similar in form and colour but vary in size, the inner ones being small, and the outer ones so large as to resemble the sepals from which they are scarcely to be distinguished. The *buds* are long and much pointed, of a brownish pink colour. The *flowers* are large and extremely handsome, being about five inches in diameter, and of a pale cream colour. The *sepals* are linear lanceolate acute, about four inches long and three-fourths of an inch wide, ranged in two rows of six, the one alternating with the other, and the inner being somewhat paler than the outer, which is a deep brown. The *petals* are eighteen in number, arranged in three rows, similar to the sepals. They are ovate oblong, somewhat pointed and taper towards the base, which is thick and fleshy, but otherwise they are of a thin delicate texture, about three and a half inches long and upwards of an inch broad. The inner row is rather shorter than the rest but similar in every other respect. The *filaments* are very numerous and about two-thirds the length of the petals, to which many of them are attached round the mouth of the tube. The greater number of them, however, are placed along the throat of the tube, which causes them to be of unequal lengths. All are of the same pale cream colour as the petals, with a slight greenish tinge internally. The *anthers* are ovate, obtuse, deep yellow. The *style* is very conspicuous, being about the thickness of a straw and as long as the petals, with eight recurved feathery looking stigmas half an inch long. The *ovarium* is at the bottom of the tube and is comparatively small, yellowish green, apparently five-angled.

The plant is easily cultivated in rich loamy soil mixed with small bits of charcoal instead of sand, and increases freely by cuttings of the leaves or shoots, which not unfrequently emit roots at their extremity. It requires to be grown in a warm greenhouse, and to be placed in a situation where it may have plenty of light.

* PENTAS carnĕa.

Flesh-coloured Pentas.

PENTANDRIA *MONOGYNIA*.

Nat. ord. CINCHONACEÆ. § HEDYOTIDEÆ.

PENTAS, Benth. *Calycis tubus* brevis turbinatus; *limbus* profundè 5-fidus, laciniis angustis inæqualibus, glandulis 1-2 interdum in sinubus adjectis. *Corollæ tubus* elongatus; faux campanulata intus barbata; *limbus* patens, 5-fidus, laciniis ovatis glabris æstivatione leviter imbricatis. *Stamina* 5, infra faucem inserta. *Filamenta* brevia. *Antheræ* lineares. *Discus* epigynus crassus. *Stylus* filiformis, apice bilobus. *Capsula* subglobosa, apice libera, acutiuscula, loculicidè bivalvis, valvis bifidis. *Semina* numerosa. *Benth. in Bot. Mag. t.* 4086.

P. *carnea;* foliis ovatis v. ovali-oblongis acutis basi cuneatis pilosiusculis, corollæ tubo calyce multoties longiore, styli ramis elongatis, capsulæ valvulis parte adnata vix brevioribus. *Benth. l. c.*
Sipanea carnea, *Hort.*

We learn from Sir W. Hooker that this is supposed to be a native of Africa, within the tropics, and that it was introduced by Mr. Jacob Makoy, of Liege.

It is a soft wooded shrub, of a grey aspect, with strongly furrowed leaves, and terminal cymes of delicate flesh-coloured flowers. Specimens of it have been lately exhibited to the Horticultural Society by Mr. Ayres, from the collection of James Cook, Esq. of Brooklands, and by Mr. Glendinning of Turnham Green. The accompanying figure was made last September, from a plant in the possession of Messrs. Rollissons.

Judging from these we should say that it will prove a plant well worth cultivating; with a bad foliage certainly, but with flowers that more than compensate for it by their deli-

* So named by Mr. Bentham from πεντας, "a number five," in allusion to the parts of the flower being in fives instead of fours.

cacy. There can be no difficulty about growing it: for it seems to grow as freely as a Clerodendron or Ruellia, and to require similar management.

Fig. 1. is the calyx; 2. is a corolla and ovary divided longitudinally.

38.

LONICĒRA diversifolia.

Various-leaved Fly Honeysuckle.

PENTANDRIA *MONOGYNIA.*

Nat. ord. CAPRIFOLIACEÆ.

LONICERA. *Supra, vol.* 14. *t.* 1179.

§ Chamæcerasus; *baccis liberis, corollis basi vix gibbis.*

L. *diversifolia;* erecta, densè pubescens, foliis ovatis cordatisque oblongis acutis breviter petiolatis, floribus geminis et quaternatis pubescentibus subsessilibus omninò liberis, calyce cyathiformi 5-dentato, corollæ tubo hinc convexo limbo breviore, filamentis basi villosis.

L. diversifolia, *Wall. Fl. Ind.* 2. 169. *DeCand. prodr.* 4. 334.

In many respects this Himalayan shrub is much like the common Fly Honeysuckle (L. Xylosteum); from which it principally differs in its flowers being nearly or quite stalkless, and much larger. Dr. Wallich first received it from the mountains of Gurwhal; he afterwards procured it from Kamaon; according to Dr. Royle it is common on the mountains of the North of India. In a wild state it sometimes becomes small-leaved, and approaches the common Xylosteum, but its stalkless flowers still distinguish it.

By some mistake it is included by DeCandolle among his Nintooas, a set of climbing 2-flowered species which belong to the genus Caprifolium.

This is a hardy middle sized shrub, which thrives in any good garden soil, and flowers during the months of May and June. It is easily increased by cuttings of the half ripe wood, if treated in the same way as those of the common Honeysuckle. It was raised from seeds received from Dr. Royle from the North of India.

There is also in the Garden of the Horticultural Society, where the accompanying drawing was made, another Indian species of this genus, very distinct from any thing hitherto

described. It belongs to the Isicas, whose distinctive character resides in their having the twin ovaries completely united, so that when the fruit is ripe all trace of its two-fold origin disappears. It is a slender plant with deep purple branches, quite smooth leaves, and very long stalked pale yellow flowers stained with purple. It may be defined in the following terms.

L. (Isica) *discolor ;* glaberrima, foliis petiolatis oblongis acutis subtùs glaucis, pedunculis foliis dimidio brevioribus, calyce 5-dentato glandulis ciliato, corollæ tubo hinc valdè convexo discolore limbo multò breviore.

34

EPIDENDRUM pterocarpum.

Wing-fruited Epidendrum.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ. § EPIDENDREÆ.
EPIDENDRUM. Bot. Reg. 1838. *fol.* 53.

Subg. Encyclium. § III. *Labello trilobo.*

E. *pterocarpum* (Lindl. in Hooker's Journal, 3. 82. Bot. Reg. 1841. misc. 128.); pseudobulbis ovalibus compressis subdiphyllis, foliis ensiformibus acutis, racemo angusto, sepalis petalisque subæqualibus linearibus acuminatis patentibus, labelli subrotundi trilobi cordati laciniis lateralibus rotundatis intermediâ multò longiore acutâ basi bilineatâ callo pubescente obscurè tridentato auctâ, capsulâ ovatâ tri-alatâ.

We cannot say much as to the beauty of this plant, which flowered with Messrs. Loddiges in December 1842. It however presents a remarkable instance of the formation of broad wings by the fruit, which, when ripe, has three of them of considerable size.

The flowers are a brownish green, with a broad, rolled up yellow variegated lip whose middle lobe is whitish. It is a native of Mexico, and closely allied to E. tessellatum.

Fig. 1. represents the column and lip.

ÆONIUM Youngianum.

Mr. Young's Houseleek.

DODECANDRIA *DODECAGYNIA.*

Nat. ord. CRASSULACEÆ.

ÆONIUM. *Botanical Register,* 1841. *fol.* 61.

Æ. *Youngianum;* caule fruticoso crasso, foliis subcartilagineis crassis lucidis saturatè viridibus obcordato-spathulatis basi subtetragonis apice obsoletè mucronatis margine attenuatis breviter ciliatis. *Webb Histoire Naturelle des isles Canaries, Vol. III. p.* 197.

This plant, hitherto only known from the brief Latin phrase above quoted, flowered in June, 1843, in the nursery of Mr. Wm. Young of Milford, near Godalming, after whom it was named by Mr. Barker Webb, who discovered it in the Canaries.

It appears nearly allied to Æonium (Sempervirum) arboreum, which, according to Mr. Webb, does not grow in the Canaries; but we have no information concerning it.

Fig. 1. represents a section of the ovaries. Fig. 2. a young petal and stamen some time before the flower expands.

ANDROMEDA phyllireæfolia.

Phyllirea-leaved Andromeda.

DECANDRIA *MONOGYNIA.*

Nat. ord. Ericaceæ.
ANDROMEDA. Botanical Register, vol. 10. *fol.* 807.

A *phyllireæfolia;* foliis sempervirentibus oblongis convexis juxta apicem serratis, racemis pilosis axillaribus nutantibus foliorum longitudine v. longioribus, sepalis ovatis corollâ ovatâ duplò brevioribus, filamentis apice sigmoideis, antheris dorso bisetis.
A. phyllireæfolia, *Hook. ic. plant. vol.* 2. *t.* 122.
Pieris ? phyllireæfolia, *DeCand. prodr.* 7. 599.

A very neat greenhouse shrub, introduced lately by Messrs. Loddiges, with whom it flowered for the first time in January last. It was originally discovered in West Florida, at a place called Apalachicola, by the late Mr. Drummond, from whom we have a specimen.

We place the plant, with Sir W. Hooker, in Andromeda, for these reasons. In the first place there seems no sufficient ground for separating from Andromeda the genera proposed by the Dons, which, to our apprehension, are neither limited by solid characters, nor so contrived as to form useful divisions. Secondly, the plant before us will not suit any of them exactly ; so that M. DeCandolle, who admitted the proposed divisions, although he thrust it into Pieris, a name in which he admits there is no common sense, does so with doubt, and questions whether it may not form a new genus of itself. For ourselves we cannot separate it from Andromeda polifolia.

One of the most striking characters in this very distinct species is the peculiar darkness of its leaves, which thus are able to set off the snow-white flowers to great advantage. They look like pearls on a negro's neck.

It is a pity that the plant should not be hardy, but of that we fear there is no probability.

It is a pretty dwarf evergreen shrub, probably about as hardy as a Pernettya, and capable of enduring the mildest winters in the open border. It requires peat soil, and the same kind of treatment as Andromeda floribunda, like which it may be increased by layering, which should be done when the plant has finished its growth early in the autumn. It only requires the young shoots to be pegged down, and lightly covered with light sandy peat, and afterwards kept moist. The layers require two years before they are fit for removing from the mother plant.

Miss Drake del. Pub. by J. Ridgway 169 Piccadilly July 1 1844 G. Barclay sc.

CALANTHE Masūca.

Lilac Calanthe.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ. § VANDEÆ.
CALANTHE. *Botanical Register, t.* 720.

C. *Masuca* (Lindl. Gen. & Sp. Orch. p. 249. *Bletia Masuca*, Don. Prodr. fl. nep. 30. *Amblyglottis veratrifolia?* Blume Bijdr.); scapo erecto foliis latis oblongis petiolatis acuminatis subtus pubescentibus longiore, racemis multifloris, labello tripartito basi tuberculis seriatis 5-cristato, seriebus intermediis elevatioribus; laciniis lateralibus linearibus subfalcatis intermediâ multò majore cuneatâ emarginatâ in unguem linearem laciniis lateralibus æqualem angustatâ, calcare longissimo falcato clavato, columnâ brevi obliquâ anticè bifoveatâ, ovario pubescente.

For the figure of this charming plant we have to thank Messrs. Rollisson of Tooting, with whom it flowered in June, 1843.

It is a native of Nepal, and may be regarded as the gayest of the terrestrial species of that rich country, being conspicuous both for the large size of their flowers and their fine colour.

From the other purple species allied to it, this is readily known by the leaves as well as by the flowers. *C. versicolor* has leaves smooth on both sides; *C. purpurea* downy on both sides, especially beneath; while this has down only on the under side. *C. versicolor* has white sepals and petals; *C. purpurea*, and this, purple ones. While however *C. purpurea* agrees in the colour of its flowers, its lip is altogether different, being very narrow, with the lateral lobes quite round. In order that there may be no confusion among these nearly allied plants, the characters of C. purpurea and versicolor are given below.

C. Masuca should be potted in turfy heath-mould, mixed with a few pieces of potsherds. In summer it should receive

an ample supply of water at its roots; and where it can be avoided, little should be allowed to fall on its leaves, otherwise the young shoots will damp off. It enjoys a humid atmosphere and a high temperature; but as the leaves are very delicate, they will soon become scorched if shading is not carefully attended to. In winter little water will be required; still it is necessary to keep the soil damp enough to preserve the bulbs from shrivelling. This is one of the most difficult of Orchidaceous plants to grow well.

C. *purpurea* (Lindl. Gen. & Sp. Orch. no. 2); scapo erecto foliis latis oblongis petiolatis acuminatis supra pilosis subtus tomentosis longiore, racemis laxis multifloris, labelli trilobi lobis lateralibus nanis rotundatis patentibus intermedio angusto cuneato divergenti-bilobo, calcare ovario vix breviore.

C. *versicolor* (Lindl. Sert. Orch. t. 42); foliis oblongo-lanceolatis erectis concavis 7-9-nerviis utrinque glaberrimis scapo apice pubescente brevioribus, racemo denso pyramidato, labelli columnæ brevi accreti trilobi lobis lateralibus ovatis nanis intermedio cuneato bilobo multò majore basi trituberculato secus lineam mediam verrucoso, calcare glabro ovarii pubescentis longitudine.

CEANOTHUS thyrsiflorus.

Thyrse-bearing Ceanothus.

PENTANDRIA *MONOGYNIA.*

Nat. ord. Rhamnaceæ.
CEANOTHUS. *Botanical Register, vol.* 4. *fol.* 291.

C. *thyrsiflorus;* caule arboreo, ramulis inermibus angulatis, foliis ovato-oblongis glanduloso-serratis lucidis utrinque viridibus subtus pubescentibus triplinerviis, paniculis terminalibus oblongis contractis racemiformibus.
C. thyrsiflorus, *Eschscholtz in mem. acad. Petrop.* 1826. *Hooker Fl. Bor. Am.* 1. 125. *Torrey & Gray, Flora of North America,* 1. 266.
C. divaricatus, *Hort.* nec *Nuttall.*

A perfectly hardy shrub, as this is, with evergreen foliage of the most beautiful glossy green, and dense panicles of bright blue flowers, is indeed an acquisition to our gardens. In all respects this is one of the most valuable things that has been introduced for years. The country owes it to R. B. Hinds, Esq., who, while surgeon to the Sulphur surveying ship, occupied himself with Botany, formed collections of dried plants, now publishing under the auspices of the Admiralty, and sent home seeds to the Horticultural Society, from among which this was obtained. He describes it as being common at San Francisco and Monterey, where it produces a most beautiful effect.

A considerable number of plants have been distributed by the Horticultural Society under the name of C. divaricatus, which species it was at first supposed to be. Now, however, that it has flowered, it proves to be C. thyrsiflorus, and the first name has to be changed.

According to Messrs. Torrey and Gray, this species forms a small tree, with a stem sometimes as thick as a man's arm. The wild specimens, gathered in California by Douglas, for he too found it, appear to belong to a plant of considerable

stature, and are completely loaded with dense masses of bloom.

Our drawing was made in the Garden of the Horticultural Society in May last, when it first began to flower against a south wall.

This shrub may be planted in any kind of soil, and is easily increased by cuttings of the half-ripe wood, treated in the ordinary way.

ODONTOGLOSSUM læve.

Smooth-lipped Odontoglossum.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ. § VANDEÆ.
ODONTOGLOSSUM. *Botanical Register*, 1840. *fol.* 30.

O. *læve*; pseudobulbis compressis sulcatis, foliis oblongo-ensiformibus obtusis apice obliquis, floribus paniculatis, bracteis laxis membranaceis, sepalis petalisque oblongo-linearibus acutis planis, labelli laminâ panduriformi apiculatâ ungue lævi obsoletissimè bidentato, columnæ alis apice rotundatis crispis basi planis.

Both Mr. Skinner and Mr. Hartweg found this plant abundantly in Guatemala, and sent it home to their friends, so that it is by no means rare in collections. It is not, however, much esteemed, because of the flatness of colour in its flowers. Nevertheless, they have cinnamon-brown blotches on the yellow ground of the petals and sepals; and the lip, which is white, is banded with violet across the middle; besides which they are fragrant.

The name Odontoglossum, or Tooth-tongue, has been given to these plants, because they are usually furnished with strong teeth on the lower part of the lip, and these teeth are not unfrequently very conspicuous. Here, however, they are reduced to a couple of trifling notches, and might be easily overlooked.

Our drawing was made in the garden of the Horticultural Society in May, 1842. Fig. 1. represents the column, seen in front, with its wings.

This species should be potted in turfy peat, and placed in a moist stove. A liberal supply of water should be given during the growing season, and the house be slightly shaded in sunny weather, in order to keep the temperature as near

80° by day as possible. In winter, like many other bulbous Orchidaceous plants, it requires very little water for a few weeks, but would be much benefited (especially in clear weather) if the house in which it is grown could be filled with steam once a day. The temperature should at that time never be raised above 60° by fire heat.

*HINDSIA violăcĕa.

Porcelain blue Hindsia.

PENTANDRIA *MONOGYNIA.*

Nat. ord. CINCHONACEÆ.

HINDSIA. Calycis tubus turbinatus, limbus 4-5-partitus laciniis inæqualibus linearibus v. apice foliaceo-dilatatis. *Corolla* infundibuliformis, tubo elongato, superne paullo inflato et inter stamina intus barbato, fauce nuda, limbi laciniis 5 ovatis, æstivatione valvata. *Antheræ* lineares sub apice tubi subsessiles. *Ovarium* biloculare; placentæ medio dissepimento affixæ, multiovulatæ. *Styli* rami longi lineares compressiusculi papilloso-hirti. *Capsula* calyce corticata, septicide bivalvis, valvulis duris demum loculicide bipartitis. *Semina* numerosa, non alata (matura ignota).——Frutices *austro-americani.* Folia *opposita, petiolata, ovata v. sublanceolata.* Stipulæ *utrinque solitariæ ovatæ, integræ, v. glanduloso-dentatæ intus sæpius glandulosæ.* Flores *ad apices ramorum in cymas subfoliatas dispositi, subsessiles, speciosi, corollis cæruleo-violaceis.* Bentham MSS.

H. *violacea* (supra, p. 40); molliter pubescens, stipulis ovatis, foliis lato-ovatis basi rotundatis, laciniis calycinis valde inæqualibus majoribus supra medium foliaceo-dilatatis. *Bentham MSS.*

"The above generic character is taken from this species and from the closely allied Rondeletia longiflora of Chamisso and Schlechtendahl, which may be thus characterised as a second species of Hindsia.

H. *longiflora;* glabra *v.* tenuissime pubescens, stipulis lanceolatis, foliis anguste ovatis basi longe acutatis, laciniis calycinis parum inæqualibus non dilatatis.

"It is much to be regretted that these plants should have been referred to Rondeletia, from which they differ so much in appearance, and from which they may be essentially distinguished by the form of the corolla, rather funnel-shaped than salver-shaped, without any callous contraction or beard at the mouth of the tube, by the capsule which (according to

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* See p. 40 of the miscellaneous matter of this volume.

Chamisso and Schlechtendahl) separates by the splitting of the dissepiment into two cocci, which are loculicidally split, and by some other minor points. Nearly the same characters distinguish them also from Sipanea, which is quite as nearly related as Rondeletia, though very different in habit. They have also been compared with Bouvardia, and in some respects resemble the large white-flowered species of that genus, but independently of all minor distinctions the Hindsias have the ovules and probably the seeds of the tribe of Rondeletieæ, not of that of the Cinchoneæ.

"The Hindsia violacea differs from the better known H. longiflora, chiefly by having much larger, broader, and more downy leaves, the flowers much larger and more hairy; and by the calyx, of which one, two, or three divisions are much larger than the rest, and more or less dilated and leaf-like above the middle.

"Both species vary in the size of the flowers, and in the shade of their colour. In the H. longiflora also, and perhaps in H. violacea the stamens are entirely included in the tube of the corolla in some specimens, and in others the tips of the anthers protrude. In the latter case the style appears to be less prominent than in the former, so that these differences may arise probably from a certain degree of sexuality."

For the foregoing matter we are indebted to the kindness of Mr. Bentham, who agrees with us in regarding the Rondeletia longiflora wrongly referred to the genus in which it has been placed.

This Hindsia violacea is one of the finest things obtained from South Brazil. It has been imported by Messrs. Veitch and Son of Exeter, who received for it the large silver medal at the Horticultural Society's Garden Exhibition in May last. It will doubtless prove a very easily cultivated greenhouse plant; and is certainly unsurpassed in beauty by blue flowering shrubs.

AERĬDES virens.

Green-leaved Air plant.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ. § VANDEÆ.

AERIDES. *Supra*, 1842. *fol.* 55.

A. *virens* (Lindl. in Bot. Reg. 1843. misc. 48); foliis latis obliquè retusis, racemis pendulis multifloris, sepalis petalisque obovatis obtusis, labelli cornu acuminato ascendente lobis lateralibus apice denticulatis intermedio lanceolato medio canaliculato versus apicem denticulato.

This is a beautiful addition to that set of Aerides of which A. odoratum was the first discovered. Like the flowers of that species, these are deliciously and very peculiarly sweet-scented, and not at all inferior in size.

Each sepal and petal has a deep purple blotch at the end, while the remainder is a delicate soft French white. The lip is speckled with crimson, and bears in the middle an inflated, sanguine, serrated tongue; as is represented at fig. 1.

The leaves are much alike in all these plants, but here they are of a peculiarly bright green, which circumstance has suggested the name.

Our drawing was made in April, 1843, in the stove of Messrs. Loddiges, who imported it from Java.

42

1

STENOMESSON Hartwegii.

Mr. Hartweg's Stenomesson.

HEXANDRIA *MONOGYNIA.*

Nat. ord. AMARYLLIDACEÆ.
STENOMESSON. Herbert.

S. *Hartwegii;* foliis synanthiis ligulatis margine revolutis, umbellis 2-floris, spatha pedicellis breviore, floribus pendulis, perianthii laciniis ovatis erectis, staminibus inclusis, coronæ edentulæ filamentis 2-3 dentatis sinubus integris acutis.

A pretty little bulbous plant found by Mr. Hartweg at the Hacienda del Ixo, on the ascent to Antisana, in the province of Quito, at the height of 11,800 feet above the sea.

It has gay orange-coloured nodding flowers, growing in pairs.

Fig. 1. represents the flower cut open so as to shew that the filaments are 3-toothed, without any considerable space between them.

The accompanying figure was made in the garden of the Horticultural Society in March last; but the plant, which has been extensively distributed by the Society, has appeared in many other collections.

It should be potted in a compost consisting of peat and sandy loam in equal proportions. In spring and summer, while the plant is in a growing state, an ample supply of water should be given, but in autumn, when the leaves begin to die off, this should gradually be withheld, and for a few weeks in winter kept quite dry. The temperature in a warm greenhouse will be quite sufficient.

Pub by J. Ridgway 169 Piccadilly Aug 1 1844

*HABROTHAMNUS purpureus.

Purple Habrothamnus.

PENTANDRIA *MONOGYNIA.*

Nat. ord. Cestraceæ.

HABROTHAMNUS. *Calyx* campanulatus, quinquedentatus. *Corolla* hypogyna, clavato-tubulosa, tubo longo, limbo quinquedentato, contracto. *Stamina* 5, medio corollæ tubo inserta, inclusa; *filamenta* simplicia. *Antheræ* longitudinaliter dehiscentes. *Ovarium* biloculare, placentis oblongis, dissepimento adnatis, pluriovulatis. *Stylus* simplex; *stigma* capitatum, obsolete bilobum. *Bacca* calyce cincta, bilocularis. *Semina* pauca, angulata, umbilico ventrali. *Embryo* in axi albuminis carnosi rectus; *cotyledonibus* foliaceis, *radicula* tereti, infera.——Frutices *mexicani, glabri v. subtomentoso-pubescentes,* pilis *articulatis;* foliis *alternis, integerrimis,* floribus *inæqualiter cymosis,* corollis *baccisque rubris.*—Endl. gen. p. 667. no. 3867.

H. *purpureus;* ramulis foliisque subtus pubescentibus, foliis petiolatis ovato-lanceolatis acuminatis, cymis terminalibus, calyce obconico glabro, corollæ laciniis acutis ciliatis.

H. elegans, *Hort.*

H. purpureus, *Supra misc. no.* 19. *p.* 12.

The beauty of Habrothamnus fasciculatus is so striking that attention is strongly drawn to the discovery of other species in Mexico; and the Belgians have already succeeded in adding that now represented, which, although not comparable with H. fasciculatus, is evidently a graceful and gay-looking plant. We received fresh specimens from Mr. Van Houtte, Nurseryman, Ghent, in January last, and with them a coloured figure by Mr. Van Damme. From these materials the accompanying figure has been made. We however fear that justice has hardly been done to the colours, partly because of the specimen having flowered in the winter, and partly because it is probable that pressure and packing had

* So named from ἁβρὸς, gay, and θαμνος, a shoot or branch, in allusion to the beauty of the species.

given too much blue to the flowers we examined. We understand indeed that the corolla is really of a bright carmine.

We have not seen the plant in cultivation in this country: but it is evidently a soft-wooded species, to be treated in the same manner as Pelargoniums.

It differs from *H. fasciculatus* in its small bracts, and less conspicuous flowers, which moreover are smooth, not downy; from *H. tomentosus* in the shortness of the lobes of the corolla, the broadness of the leaves, the smoothness of the calyx, and the terminal, not lateral, flowers; from *H. corymbosus* in not being destitute of hairs.

44

BERBERIS umbellata.

Umbellate Berberry.

HEXANDRIA *MONOGYNIA.*

Nat. ord. BERBERACEÆ.
BERBERIS. L. Bot. Reg. 1840. *fol.* 27.

* *Leaves simple, evergreen. Flowers racemose.*

B. *umbellata;* spinis gracilibus 3-partitis, foliis angustis obovato-oblongis integerrimis mucronatis subtus glaucis, racemis foliis longioribus.
B. umbellata, *Wall. herb. Don. syst.* 1. 116.
B. angulosa, *Wall. Cat. no.* 1475.

This is a hardy sub-evergreen bush, about three feet high, growing freely in the common garden soil, flowering abundantly in June, and easily increased either by seeds or layers.

It was raised in the garden of the Horticultural Society, from seeds received from the East India Company, at different times, and under various names, but more particularly those of B. *Wallichiana* and *floribunda.* It is no doubt in many other collections under this or similar names. B. floribunda however has spiny leaves, not at all glaucous on the under side, and B. Wallichiana, which also differs in those respects, has sessile fascicles of flowers, and is quite another thing.

This is easily known by its narrow, spineless leaves, slightly glaucous beneath when fresh, and becoming more so when dry.

Dr. Wallich has distinguished a plant called B. angulosa from his B. umbellata, but our specimens of it from him present no tangible mark of distinction. As for the name umbellata, it is unfortunate that it has been introduced into systematic works, for the shortness of the racemes, from which circumstance it has been taken, is apparently accidental and unimportant.

EPIDENDRUM radiātum.

Ray-flowered Epidendrum.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ. § EPIDENDREÆ.
EPIDENDRUM. *Supra,* 1838. *fol.* 53.

§ OSMOPHYTUM. Caulis pseudobulbosus v. fusiformis apice foliosus. Flores racemosi. Labellum adnatum, sæpius indivisum et cochleatum. *Lindl. in Hook. Journ.* 3. 81. *Bot. Reg.* 1842. *sub folio* 50.

E. *radiatum* (Lindl. in Bot. Reg. misc. 1841. no. 123); pseudobulbis ovatis compressis utrinque tricostatis triphyllis, foliis angustis elongatis acutis, racemo denso multifloro, ovariis trialatis, sepalis linearibus petalisque lanceolatis patentissimis, labello cochleato crenato crispo, clinandrio trilobo laciniis lateralibus erectis carnosis intermediâ truncatâ apice serratâ.

Allied to both *E. cochleatum* and *lancifolium,* this pretty species is distinctly known by the round form and crisp margin of its lip, which moreover is almost notched out in the middle, and very delicately streaked with purple. Its petals too are both shorter and broader than in either of those two species.

Its habit is precisely theirs; and the three, considering their constant flowering and very neat appearance, deserve a place in all collections. Besides, this species smells deliciously of cinnamon.

The accompanying figure is from a plant in the garden of the Horticultural Society, received from Mexico from Mr. Hartweg. We also possess specimens gathered in that country on rocks, at the Hacienda de la Laguna, by Dr. Schiede.

It should be potted in turfy heath-mould, mixed with small pieces of potsherds. During the growing season an ample supply of water should be given, and the atmosphere kept as moist as possible. In summer when the sun is

strong, the house should be slightly shaded, in order to keep the temperature as near 80° by day as possible, without admitting much air. For a few weeks in winter little or no water should be given, providing the house can be filled with steam once a day.

40
1
2

ALŌNA cœlestis.

Sky-blue Alona.

PENTANDRIA *MONOGYNIA.*

Nat. ord. NOLANACEÆ.
ALONA, Lindl. (Vide infra.)

A. *cœlestis.* (Vide infra.)

It has long been known to Botanists that Chile and Peru abound in shrubby plants allied to Nolana, few of which are yet published, but including among them some species of remarkable beauty. Hitherto our gardens have possessed no others than *N. prostrata, tenella, paradoxa*, and *atriplicifolia*, of which the first and last alone remain in cultivation. But they are annuals, and, with the exception of the last, of small importance for the purposes of decoration. The shrubs are still to procure. Of these one species, that now figured, has at last been raised from some of Mr. Bridges' seeds, by Mr. Best, gardener to A. Park, Esq. of Merton Grove, Surrey.

It proves to be a very fine thing, with pale sky-blue flowers, each of which remains in beauty for several days. Its habit is that of a soft-leaved heath, and it appears likely to form a bush of some such size as a common Pelargonium. What its proper treatment may be we are unable to tell, having had no opportunity of studying the plant; but we presume it will thrive with the same cultivation as Scarlet Pelargoniums, and we hope it will prove a capital thing for bedding out during the summer. We would, however, suggest to gardeners, that as all the Nolanas appear to be shore plants, salt in small quantities may be found useful in the soil.

Our drawing was made from a plant exhibited to the

Horticultural Society in July last, when it received the silver Knightian medal.

The genus Nolana, as at present constituted, includes plants so different from each other in structure and general appearance that, considering the principles adopted in the classification of the Convolvulaceous, Boraginaceous, and other allied orders, it is necessary to break it up into several genera, for which good characters will be found in the very remarkable fruit, and probably in the flowers also, whenever an opportunity shall occur for examining them in a fresh state.

If we regard *Nolana prostrata* as the original species of Nolana, we shall find that its distinctive character resides in the regular combination of its twenty ovaries into five nuts or drupes, each of which is four-celled.

But there is another group, consisting principally of shrubs, in which the ovaries are very irregularly combined, so that while some of the nuts or drupes are four or more celled, others have not more than one, two, or three cells. They may be conveniently separated under the name of Alona (the anagram of Nolana).

Corresponding with these in the irregular condition of the fruit, but not having more than eight or ten ovaries in combination, are two singular plants with all the habit of shrubby Salsolas, and a very small hypocrateriform corolla. They may be named Dolia (from *δολιος*, deceptive); they being one thing, and looking like another.

On the other hand, in Nolana paradoxa and atriplicifolia there is a complete breaking up of the twenty ovaries into so many independent drupes. Those species constitute a group bearing the same relation to the other genera as Malope to its neighbouring Malvaceæ. The name Sorema (from *σωρος*, a heap,) may be applied to them.

Finally, under the name of Aplocarya (*απλοος*, simple, and *καρυα*, a nut,) it will be desirable to station a singular scrubby shrub, in which the ovaries are five in number, and altogether simple.

The following brief characters will serve for the discrimination of these plants, until they can be described in greater detail.

Nolana, *Linn.*

Corolla campanulata. *Ovaria* 5, 4-locularia. *Drupæ* 4-loculares, 4-spermæ, basi apertæ.——Herbæ *annuæ prostratæ*, floribus *convolvulaceis*.

1. N. *prostrata*, Linn.——Chile.
2. N. *tenella*, Lindl. in Hort. Trans. 1827.=N. paradoxa, *Bot. Mag. t.* 2604. ——Chile.——Obs. A precedente calyce bilobo diversa.
3. N. *spathulata*, Fl. Peruv.——Peru.
4. N. *inflata*, Fl. Peruv.——Peru.
5. N. ? *coronata*, Fl. Peruv.——Peru.

Alona.

Corolla campanulata. *Ovaria* plura, 1-6-locularia. *Nuces* v. *drupæ* 1-6-loculares, seminibus paucioribus, basi apertæ.——Plantæ floribus *conspicuis*, *nunc* fruticosæ *teretifoliæ*, *nunc* herbaceæ *planifoliæ*.

1. A. *cœlestis;* fruticosa, glabriuscula, foliis teretibus fasciculatis, calycis hirsuti longè pedunculati dentibus apice teretibus subæqualibus, corollæ plicis pilosis, nucibus quibusdam multilocularibus.——Coquimbo, (herb. Cuming, 857 ; Bridges, 1329).
2. A. *rostrata ;* fruticosa, ramulis pubescentibus, foliis teretibus sparsis, calyce glabro subsessili subbilabiato in alabastro rostrato, corollæ plicis glaberrimis.——Coquimbo, (herb. Bridges, 1326). A very fine species, with flowers as large as the last.
3. A. *obtusa ;* fruticosa, ramulis scabriusculis, foliis teretibus sparsis, calyce glabro breviter pedunculato subbilabiato in alabastro obtuso, corollæ plicis glaberrimis.——Coquimbo, (herb. Bridges, 1327). Like the last, but leaves shorter, flowers smaller, and calyx different.
4. A. *glandulosa ;* fruticosa, undique corolla etiam glanduloso-scabra, foliis brevibus teretibus sparsis subsquarrosis basi valdè productis, calycis subsessilis angulati dentibus brevibus abruptè teretibus.——Coquimbo, (Macrae). Flowers smaller than in the last.
5. A. *carnosa ;* fruticosa, glabriuscula, foliis brevibus rigidis trigonis incurvis sparsis, calycis subsessilis bilobi teretis carnosi dentibus tenuibus, corollâ glabrâ.——Coquimbo, (herb. Bridges, 1328 ; Cuming, 863). Flowers as large as those of A. obtusa.
6. A. *tomentosa ;* fruticosa, incano-tomentosa, foliis spathulatis obtusissimis sparsis planis margine revolutis, calycis 5-fidi brevè pedunculati dentibus triangularibus, corolla pubescenti.——Valparaiso, on rocky cliffs, (herb. Bridges, Cuming, 481). Flowers white, small.
7. A. *revoluta.*=Nolana revoluta, *Fl. Peruv.* 2. t. 113. f. 6.——Peru. (herb. Mathews, 836, 837 ; Cuming, 1068). Herbaceous, shrubby at the base. Flowers as large as in Nolana prostrata.
8. A. *baccata ;* annua, erecta, pubescens ; foliis lineari-oblongis obtusis carnosis, calycis longipedunculati laciniis triangularibus, corolla glabra.——Coquimbo, (herb. Bridges, 1322). Flowers large, and apparently yellow. Drupes quite pulpy in the dried state.
9. A. *longifolia ;* annua, procumbens ?, pubescens, foliis ovato-oblongis tenuibus, calycis longipedunculati laciniis inæqualibus linearibus corolla

dimidio tantùm brevioribus, corollâ pilosiusculâ, drupis siccis rugosis. ——Coquimbo, (herb. Cuming, 887). A coarse half-succulent plant, with flowers an inch and a half long. Its drupes appear to have scarcely any pulp; six are one-celled, and one four-celled, with the cells placed *one above the other!*

Dolia.

Corolla hypocrateriformis, limbo campanulato. *Ovaria* 8-10, variè coadunata. *Nuces* 1-3-loculares, basi clausæ.——Fruticuli *erecti, ramosi,* foliis *linearibus, carnosis,* floribus *minutis.*

1. D. *vermiculata;* ramis cotoneis, foliis brevissimis, calycis dentibus carnosis obtusis recurvis tubo corollæ multò brevioribus.——Coquimbo, (herb. Cuming, 893; Bridges, 1336).
2. D. *Salsoloides;* ramis calvis, foliis longis linearibus, calycis dentibus linearibus obtusis tubo corollæ æqualibus v. longioribus.——Chile, (Macrae). This has quite the appearance of some of the Salsolas, or still more of Chenopodium maritimum.

Sorema.

Corolla campanulata. *Ovaria* 20, libera, cumulata. *Drupæ* 1-loculares, 1-spermæ, basi apertæ.——Herbæ *annuæ, prostratæ,* floribus *convolvulaceis.*

1. S. *paradoxa.*=Nolana paradoxa, *Lindl. in Bot. Reg. t.* 865.——Chile.
2. S. *atriplicifolia.*=Nolana atriplicifolia, *D. Don.*——Chile, (within the spray of the sea, Bridges; herb. Cuming, 627).

Aplocarya.

Corolla campanulata. *Ovaria* 5, omnino libera. *Nuces* 5, simplices, erectæ, basi omnino apertæ, toroque facile separabiles. *Semina* (immatura) hilo magno pulvinato.——Fruticulus *ramosus,* floribus *parvis,* foliis *carnosis.*

Sp. 1. A. *divaricata.*——Coquimbo, (herb. Cuming, 862). Fruticulus rigidus, ramosus, divaricatus. Folia carnosa, lineari-spathulata retusa. Flores parvi, solitarii, terminales. Calyx tubi corollæ longitudine, 5-dentatus.

47

* CORETHROSTY̆LIS bractēata.

Rosy-armed Corethrostylis.

PENTANDRIA *MONOGYNIA.*

Nat. ord. Lasiopetaleæ.

CORETHROSTYLIS, Endl. *Inflorescentia* cymosa, oppositifolia. *Bracteolæ* a calyce remotæ, coloratæ. *Calyx* petaloideus, marcescens, ad basim quinquepartitus, laciniis lanceolato-acuminatis, stellato-patentibus, æstivatione valvatis. *Corolla* nulla. *Stamina* 5, hypogyna, calycis laciniis alterna; *filamenta* brevissima, subulata, libera; *antheræ* extrorsæ, biloculares, ovoideo-oblongæ, medio dorso insertæ, loculis apice intus poro dehiscentibus. *Ovarium* sessile, triloculare. *Ovula* in loculis gemina, collateralia, ex anguli centralis basi adscendentia, extrorsum anatropa. *Stylus* elongatus, pilorum fasciculis retrorsis hispidus, pyramidato-scopæformis. *Stigma* simplex. *Capsula* calyce emarcido connivente tecta, trilocularis, loculicide trivalvis, valvis medio septiferis intus glabris. *Semina* in loculis solitaria, erecta, ovato-oblonga, *testa* durissima, *raphe* introrsa filiformi adnata, umbilicum basilarem, strophiola cupulæformi multipartita cinctum, cum chalaza apicali, jungente. *Embryo* in axi albuminis carnosi orthotropus, ejusdem fere longitudine, *cotyledonibus* foliaceis, ovatis, planis, dorso raphen respicientibus, *radicula* tereti, longa, umbilicum attingente, infera. ——Frutices *Novæ-Hollandiæ austro-occidentalis, pilis stellatis consiti;* foliis *alternis, petiolatis, cordatis, integerrimis v. repando subsinuatis,* inflorescentia *oppositifolia, cymoso-racemosa,* bracteis *foliaceis,* bracteolis *sparsis, coloratis,* alabastris *acuminatis.*—Endl. gen. no. 5326.

C. *bracteata;* Endl. nov. stirp. mus. Vind. dec. 1. Walper's repert. 1. 337.

This is one of the most striking of the Swan River shrubs, but owing to some difficulty in cultivating it, the specimens that have been produced in Europe are very inferior to the wild ones. In the latter the bracts are four times as large as in the annexed cut, and of the most vivid rose-colour, thus rendering the bush indescribably gay; for the long loose clusters, adorned by these bracts, are produced in multitudes all over the plant.

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* From κορηθρον, a broom, in allusion to the singularly hairy style.

We entertain no doubt that when the habits of the plant shall have been more correctly studied it will become a general favourite. In the meanwhile it is as well to know that the foliage is very sweet-scented.

Our figure was made last spring from a plant belonging to Mr. Groom of the Clapham Nursery.

Fig. 1. shows the broom-like style, with the anthers at the base; 2. the ovary and style after the anthers have been pulled off; 3. an anther viewed from behind; 4. a cross section of the ovary.

It is a greenhouse shrub, and will succeed best if potted in rough peat, well mixed with one-fourth silver sand. During the summer season a liberal supply of water should be given, and as much air as possible. In winter it should be treated in the same manner as Cape Heaths—never applying fire heat except to keep off frost. It may be propagated by cuttings in the usual way.

48

Miss Drake del. Pub. by J. Ridgway 169 Piccadilly

GLOXINIA speciŏsa.

(*Garden Varieties.*)

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. GESNERACEÆ.

GLOXINIA. Botanical Register, vol. 3. fol. 213.

1. GLOXINIA magnifica.
2. ——————— insignis.
3. ——————— bicolor.
4. ——————— Cartoni.

For the few last months our gardens have been furnished with some new varieties of this beautiful plant, which have excited universal admiration; especially those in which pink is the predominant colour. We have, therefore, thought it desirable to take advantage of an opportunity afforded by Mr. Glendinning of the Chiswick Nursery, for bringing together the most distinct among them.

The account Mr. Glendinning has given of their origin is as follows:—

"These beautiful varieties were raised from *G. speciosa rubra* fertilized with the pollen of *Sinningia guttata.* The flowers, however, give little evidence of the male parent, although the branching habit which distinguish Nos. 1, 2, and 4, are proofs of their alliance to Sinningia, particularly that of *magniflora*, which has very hairy leaves and stems, and an erect growth.

"They were first raised in the garden of the Duke of Northumberland at Syon, by his Grace's gardener, Mr. Carton, who has been long celebrated for producing various interesting novelties by hybridizing. The plants which

furnished the figures were exhibited by me before the Horticultural Society in Regent Street, in June last, when they were awarded a Banksian medal. The same individuals have continued to bloom ever since very profusely, and are now, August 14th, still in flower. On that account, as well as their great beauty, they are likely to prove permanent objects of interest in our gardens."

49

*ASTIRIA rosea.

Pink Astiria.

MONADELPHIA *PENTAGYNIA.*

Nat. ord. BUTTNERIACEÆ.

ASTIRIA, (*Lindl. supra misc. no.* 31. *Maio.*) *Involucellum* 3-phyllum, deciduum. *Petala* 5 contorta. *Stamina* 20 inæqualia, in urceolum connata; sterilibus intermixtis nullis. *Ovarium* 5-loculare, *stylis* totidem liberis spathulatis. *Ovula* 2 cuique loculo, ascendentia.——Arbor *tomentosus, Borbonicus,* Dombeyæ *v.* Ruiziæ *vultu.*

A. *rosea* (Lindl. supra 1844. misc. 31.)

Arbor stellato-tomentosus. *Folia* longè petiolata, subrotunda, cordata, obsoletè serrulata. *Pedunculi* axillares, apice cymosi, petiolo breviores, 10-12 flori. *Involucelli foliola* subrotunda, calyce paulò breviora, denique reflexa et decidua. *Calyx* 5 fidus, valvatus. *Petala* rosea valdè obliqua, calyce paulo longiora. *Antheræ* lineares, erectæ, extrorsæ.

His Grace the Duke of Northumberland received this plant from the Mauritius, at the end of the year 1833, along with Trochetia grandiflora, already figured in this volume (t. 21.) It flowered at Syon at the end of March last, when our drawing was made.

The fine broad heart-shaped leaves, and close clusters of pink flowers, render it a rather handsome plant. Fig. 1. represents a portion of its stamens, and 2, the ovary and styles.

From all the race of Byttneriaceæ, to which this belongs, it differs in the want of sterile stamens, with the exception of Ruizia. From Ruizia it is distinguished by having a 5-celled and not a 10-celled ovary, and not having hairy capitate stig-

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* From α privative, and στειρος sterile, in allusion to the want of sterile stamens.

mata, if the figures of that genus, as given by Cavanilles, are to be trusted. It may even be regarded as a species of Ruizia, but, if so, we find no published species to which it can be referred.

50

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* LACÆNA bicŏlor.

Two-coloured Lacæna.

GYNANDRIA *MONANDRIA.*

Nat. ord. Orchidaceæ. § Vandeæ; Maxillaridæ.

LACÆNA, Lindl. Perianthium carnosum patens, *sepalis* subæqualibus basi subconnatis. *Petala* conformia minora. *Labellum* cum columnâ et in medio articulatum, hypochilio unguiculato cuneato bilobo apice pulvinato, epichilio integro. *Columna* erecta semiteres. *Pollinia* 2, posticè fissa, *caudiculâ* setaceâ, *glandulâ* minutâ.——*Herba,* Peristeriæ *habitu.*

L. bicolor, *Lindl. in Bot. Register,* 1843. *misc.* 101.

This fine plant was sent to the Horticultural Society from Guatemala by Mr. Hartweg, who found it in the mountains of Salama, in the province of Vera Paz, also near the village of Sunil, near Quezaltenango, in Guatemala, growing on rocks, at an elevation of about 7000 feet above the sea. In May, 1843, it produced its flowers, and ever since has been in such bad health that it is doubtful if it will survive.

In habit the species is so like some of the Peristerias with pendulous racemes, that it would certainly be mistaken for them; and in structure it approaches them no doubt very closely. It is, however, essentially distinguished by the labellum and pollen apparatus. In Peristerias the labellum, although having a moveable joint in the middle, is continuous with the column by a thick fleshy base; here the articulation at that part is very conspicuous. The Peristerias have four pollen-masses; here we have but two. And, finally, the strap by which the pollen-masses cohere is long and slender, like that of a Lycaste, not deficient, so as to render

* This was one of the names of Helen, and may be applied to this plant because of its beauty: but it may also be derived from λακις, a cleft, in allusion to the divisions of its lip.

the pollen-masses sessile upon a crescent-shaped gland as in Peristerias.

The flowers of this plant are formed in a pendulous raceme, as much as eighteen inches long; the lower part being clothed with distant short blunt scales, which extend into bracts about half the length of the pedicels. Each raceme consists of nine or ten flowers of a dull greenish yellow, covered externally with short hairs; their petals have three streaks of violet; their lip is downy all over the upper surface, dark purple in the middle, with two or three spots of the same colour near the point. In the centre of the lower half is a large shaggy hump.

Fig. 1, represents the column and petals; 2, the labellum spread open; 3, pollen-apparatus.

It may be grown in a wire basket like a Stanhopea, or tied to a block of wood and suspended to a rafter, in a moist stove. If potted in the usual way, the flower-spike will be apt to go down into the soil and perish. Like many other Orchidaceous plants it requires an ample supply of water during the growing season, and shade in sunny weather, at a temperature between 80° and 90° by day, but not above 70° at night. Towards the end of October water should almost be withheld for a few weeks, no more being given than will prevent the pseudo-bulbs from shriveling.

51

Miss Drake del.
Pub by J Ridgway 169 Piccadilly Oct 1

EPIDENDRUM verrucōsum.

Warted Epidendrum.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ. § EPIDENDREÆ.
EPIDENDRUM. *Supra,* 1838. *fol.* 53.

E. *verrucosum* (Encyclium, § labello trilobo); pseudobulbis ovatis, foliis ensiformibus obtusis, scapo pedicellis ovariisque verrucosis, racemo nutante, sepalis petalisque lineari-lanceolatis acuminatis, labelli trilobi lobis lateralibus subfalcatis acutis nanis intermedio ovali crenulato basi serrato bilamellato, columnæ alis 2 nanis truncatis.

This beautiful and fragrant plant has been obtained from Mexico by Messrs. Loddiges with whom it flowered in July last. Among all the Encycliums not more than two or three are superior to it in attractiveness.

It is not very nearly related to any kinds hitherto discovered: belonging to the same set as E. tessellatum and Candollii, from all which its stems and flower-stalks, closely covered with minute asperities, and its rich crimson flowers, which are as much as three inches in diameter, readily distinguish it. Its closest affinity is perhaps with E. phœniceum, a native of Cuba, and figured in the Sertum Orchidaceum, t. 46, and *E. Hanburii,* mentioned in this work at no. 60 of the miscellaneous matter of the present year; but both those plants have the middle division of the lip 2-lobed; and they are not, that we are aware of, fragrant.

Fig. 1. represents a front view of the column; 2. the labellum spread open.

This plant should be potted in turfy heath-mould, mixed with a few pieces of potsherds. When this operation is performed, care should be taken to keep the pseudo-bulbs always above the soil. In spring and summer, while the plant is in

a growing state, an ample supply of water should be given, and the temperature allowed to rise as high as 80° or 85° by day, but not above 70° at night. In winter very little water will be required, providing a humid atmosphere can be maintained. The temperature should never be raised above 66° by fire heat.

CRATÆGUS crenulāta.

Indian Pyracantha.

ICOSANDRIA *DI-PENTAGYNIA.*

Nat. ord. Rosaceæ. § Pomeæ.
CRATÆGUS. *Supra, v.* 13. *fol.* 1128.

C. *crenulata*; spinescens, sempervirens, ramulis junioribus tomentosis, foliis angustè oblongis nitidis crenato-serratis in petiolum angustatis corymbis æqualibus v. longioribus, calycibus glabris laciniis subrotundis membranaceo-marginatis, stylis 5 glabris, pomis depresso-globosis.
C. crenulata, *Roxb. fl. Ind.* 2. 509. *D.C. prodr.* 2. 626.
Mespilus crenulata, *Don. prodr. fl. nep.* 238.

This plant is the Pyracantha of the Indian mountains, and rivals that of Caucasus in its rich scarlet haws, which are however of a peculiar vermilion tint, and of a very depressed figure. Their flavour too is by no means ungrateful. In fact, if it would bear our climate with certainty, it would be preferable to the Pyracantha itself, for its leaves have a remarkable glossy surface, and the plant is in all respects handsomer.

The shrub is a native of Nepal, whence it was long since received by Dr. Roxburgh, who named it, and says that in the Calcutta garden it had grown to the height of from six to eight feet in eight years; it would have been better for us if he had found it unkeepable. As it is we do not anticipate its hardiness in severe winters. In the garden of the Horticultural Society, where our drawing was made, it has survived several winters, trained against a south wall.

Fig. 1. is a section of a flower, without the petals, shewing the calyx, disk, stamens and carpels, which latter adhere to the tube of the calyx, by their back, but are not united to each other.

A fine hardy evergreen shrub, attaining about the same size as the common Pyracantha, and requiring the same kind

of treatment. It grows freely in any good loamy soil and rather dry situation, flowering abundantly in June, and producing its fine clusters of bright red berries in September.

It is easily increased, by grafting, or by budding on the common Thorn, or by seeds, which should be sown when ripe, in October. It was raised for the first time *true* in the garden of the Horticultural Society, from seeds, presented by Dr. Royle, from the North of India. Most plants to be found in collections at the present time, under this name, are not different from the common Pyracantha.

Miss Drake del.

Pub by J. Ridgway 169 Piccadilly Oct. 1 1844

G. Barclay sc.

DENDROBIUM compressum.

Flat-stemmed Dendrobium.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ. § MALAXEÆ—DENDROBIDÆ.
DENDROBIUM. *Supra, vol.* 15. *fol.* 1291.

Sect. DENDROCORYNE (*Lindl. in Bot. Reg.* 1842. *misc.* 76); caulibus clavatis, sæpius apice tantum foliatis.

D. *compressum* (Lindl. in Bot. Reg. 1842. misc. 76); caule obovato compresso 2-6-phyllo, foliis ovalibus acutis striatis basi dilatatis membranaceis amplexicaulibus, racemis subquadrifloris cernuis, sepalis petalisque ovatis erectis, cornu elongato obtuso, labello cuneato lævi per axin sulcato.

This singular species was discovered in the island of Ceylon by Mr. Nightingale, and by that gentleman sent to his Grace the Duke of Northumberland, from whose collection at Syon we were permitted to obtain a figure in August 1842. The year of its importation was 1840.

The curious flattened stems are not more than three or four inches long, and resemble those of no species hitherto discovered. They appear however to bring the plant into a section of the genus to which the name Dendrocoryne (κορυνη a club) may be applied, and which will also contain D. *densiflorum, tetragonum, Griffithianum,* and *Macræi.*

The singular form of the labellum, fig. 1, which is that of a wedge drawn out at the point, and furrowed along the middle, distinguishes this plant, independently of its habit.

It should be potted in turfy heath-mould. The pot in which it is grown, should be half filled with potsherds, in order that all superfluous water may pass off; the soil must be considerably elevated above its brim. During the growing season an ample supply of water should be given, and the

atmosphere kept as moist as possible. This, like many other Orchidaceous plants, requires to be shaded in sunny weather, to prevent the leaves from being scorched, as well as to keep the temperature about 85° by day, without admitting much air. In winter a humid atmosphere is necessary, but for a few weeks water should only be given to prevent the plant from shriveling.

BIGNONIA Carolinæ.

Lady Caroline's Bignonia.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. BIGNONIACEÆ. Trib. 1. BIGNONIÆ, *Bojer.*
BIGNONIA. *Bot. Reg.* 3. 249.

B. *Carolinæ;* glabra, gracilis, foliis conjugatis, foliolis cordatis acuminatis subpubescentibus, paniculis terminalibus paucifloris, calyce campanulato truncato obsoletè 5-dentato pubescente, corollâ arcuatâ tomentosâ laciniis crispis patulis. *Supra* 1842. *sub folio* 45.

All that we know of this charming plant is that it flowered with the Earl of Ilchester at Melbury in 1842, at which time we were favoured with specimens; and that it again blossomed with his Lordship in great abundance in May 1844, when the accompanying drawing was made.

It is a most desirable plant for conservatories, because, in addition to the beauty of its snow-white flowers, which the plant pours forth with exuberant luxuriance, they are sweet-scented; an unusual circumstance with Bignonias. We presume it to be a Buenos Ayres species.

It is surprising that those who struggle and strive to outdo their neighbours in preparing fine things for exhibition, should not turn their attention more to the small growing Bignonias, such as this and picta for example; and by means of the wire trellises now employed in pot cultivation, force them to confine themselves within portable dimensions. They would make most beautiful objects, and would certainly reward the gardener for whatever pains he might bestow upon them. Even B. venusta itself might no doubt be compelled to submit to such treatment, and to flower in abundance, if it had plenty of bottom heat to enable it to form its blossom buds. Indeed, the whole Bignoniaceous order is full of the finest, the most indescribably lovely plants that the eye can rest upon, of

which scarcely any, and they in many cases the worst, have found their way to Europe. Collectors in Brazil should above all things strive to procure them, and then, if half the pains are bestowed upon their management that are given to Heaths and Pelargoniums, we should acquire a race of plants whose noble flowers are such as those unacquainted with them have no conception of.

All such plants being very subject to red spider, require syringing once or twice a day during the summer months. They may be propagated from cuttings, in the usual way.

OSBECKIA stellata, *var.*

Starry Osbeckia, with small scales.

OCTANDRIA *MONOGYNIA.*

Nat. ord. Melastomaceæ.

OSBECKIA, Linn. *Calyx* tubo ovato v. oblongo, inferne cum ovarii basi connato, sæpe setis a basi palmatis v. pube stellata aut rarissime simplici vestito, limbi quadri quinquefidi laciniis cum totidem appendicibus alternantibus. *Corollæ* petala 4 v. 5, calycis fauci inserta, ejusdem laciniis alterna, ovata v. obovata. *Stamina* 8 v. 10, cum petalis inserta, subæqualia; *antheræ* oblongo-lineares, subarcuatæ, rostratæ, uniporosæ, connectivo ad basim incrassato, antice breviter bicalcarato v. biauriculato sive mutico. *Ovarium* semiinferum, vertice libero, conico setosum, quadri-quinqueloculare, loculis multiovulatis. *Stylus* filiformis, infra apicem incrassatus; *stigma* punctiforme. *Capsula* sicca, calycis tubo sursum truncato inclusa, quadri-quinquelocularis, superne loculicede quadri-quinquevalvis. *Semina* plurima, cochleata.—— Frutices *v.* suffrutices, *in Asia et Africa tropica crescentes, plerumque setoso-asperi; ramulis magis minusve tetragonis,* foliis *oppositis, rarissime verticillatis, nervosis, subintegerrimis,* floribus *terminalibus, sæpe capitatis, bracteato-involucratis, nunc solitariis, rarius racemosis v. subcorymbosis, purpurascentibus, speciosis.*—Endl. gen. 6221.

Sect. IV. Osbeckiaria, *DC.* *Cal.* 4-5 fidi, setis a basi palmatis per totum tubum ornati; appendices plumosæ aut sæpius pectinatæ; lobi demum cum appendicibus decidui ore calycis truncato.

O. *stellata;* caule suffruticoso tetragono sursùm pilis adpressis scabro, foliis petiolatis oblongo-lanceolatis septemnerviis utrinque præsertim supra pilosis subtus viridibus, pedunculis trifloris terminalibus, bracteis ovatis patulis citò deciduis, calycis appendicibus in setis longis solutis, petalis 4 subrotundis calyce multò longioribus.

O. stellata *β, DeCand. Prodr.* 3. 142.

Of this fine plant, seldom seen now in our gardens, there are two very distinct varieties. Of these one has the curious fringed scales with which the calyx is coated, so closely arranged that the whole surface is covered over with a mat of entangled bristles. A figure of this has already been given at plate 674 of this work. The other, with a narrower calyx, whose scales stand wide apart, so as to shew its sides between

them, is that now represented, of which a figure was taken last September, from a plant in the garden of Henry Thomas Hope, Esq. of the Deep Dene, near Dorking.

Since these two forms differ in nothing except the condition of their calyx, which however is very remarkable, we presume they are really mere varieties, as they are usually considered.

Fig. 1 represents one of the stamens.

The species is found in Nepal, where it seems to be common. Dr. Royle mentions it as one of those Melastomaceous plants which advance farthest to the north, in the valleys near Massooree, and on the banks of the Giree river.

It is a greenhouse plant, requiring to be potted in sandy loam and peat, in equal proportions. Although it enjoys a moist atmosphere, it is very apt to damp off if too much water is given to its roots. After flowering it should be cut back, within two inches of the old wood, and re-potted as soon as it has produced a few leaves. It may be propagated from cuttings, in the usual way.

58

Miss Drake, del. *G. Barclay sc*

Pub. by J. Ridgway 169 Piccadilly Oct. 1 1844

*CRYPTANDRA suavis.

Sweet-scented Cryptandra.

PENTANDRIA *MONOGYNIA.*

Nat. ord. RHAMNACEÆ.

CRYPTANDRA, Smith. *Calyx* coloratus, extus sæpe villosus, intus disci indiscreti strato incrustatus, tubo campanulato, rarius cylindrico, ovarii basi connato, superne libero, limbi quinquefidi laciniis acutis, erectis v. patentibus, intus carina versus apices incrassata percursis. *Corollæ* petala 5, calycis fauci inserta, ejusdem laciniis alterna, parva, cucullata, subsessilia, coriacea, persistentia. *Stamina* 5, cum petalis inserta, iisdem opposita et inclusa ; *filamenta* brevissima, antheræ introrsæ, biloculares, longitudinaliter dehiscentes. *Ovarium* semiinferum, apice libero villosum, triloculare. *Ovula* in loculis solitaria, e basi erecta, anatropa. *Stylus* simplex ; *stigma* tridentatum v. trilobum. *Capsula* semiinfera, calyce et corolla persistentibus tunicata, trilocularis, tricocca, coccis bivalvibus, monospermis. *Semina* erecta, funiculo brevi cupulæformi subtensa, oblongo-trigona, testa coriacea, lævi. *Embryo* intra albumen carnosum orthotropus ; *cotyledonibus* magnis, carnosis, planis, *radicula* brevissima, infera.——Suffrutices *ericoidei,* in Nova-Hollandia *indigeni, erecti, ramosissimi ;* ramis *fastigiatis v. patentibus interdum spinescentibus,* foliis *alternis, integerrimis, glabris,* floribus *ad apices ramulorum aggregatis v. solitariis, erectis v. nutantibus, basi squamulis quinque parvis imbricato-calyculatis.*—Endl. gen. 5742.

C. *suavis ;* pilosa, foliis obovato-linearibus, floribus in ramulos laterales axillaribus glabris, calycis tubo cylindraceo. *Supra misc. 27. hujus voluminis.*

Fruticulus, pilis longis vestitus, ramulis gracilibus abortientibus in spinas mutatis. *Folia* oblonga, obtusa, convexa, in petiolum brevem angustata, subtùs glabra, in exemplaribus spontaneis linearia margine revoluta. *Flores* candidi, cernui, suaveolentes, secus ramulos axillares, solitarii, pedicellati, glabri bracteis rufis imbricatis pariter glabris calyculati. *Calyx* oblongus, tubo cylindraceo ; limbo valvato 5-dentato.

The Cryptandras are little New Holland shrubs, with the aspect of Heaths, found on barren hills and rocky places, or in light sandy land. In a wild state they often become spiny,

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* So named from κρυπτος hidden, and ανηρ a stamen, in allusion to the concealment of the anthers beneath the hooded petals.

but in cultivation, when they are kept in a moist atmosphere, they much lose this tendency.

In general their leaves are very small, like those of the plant now before us; but in C. buxifolia, which Allan Cunningham considered a Pomaderris, they acquire a tolerable size. Their flowers are always small.

The species now figured is a native of the Swan River, whence we have wild specimens from Drummond. Its flowers are very sweet smelling, like hawthorn, and though small they render the plant attractive from the profusion in which they are produced, all over the branches. Mrs. Wray, of Oakfield, has had the good fortune to rear it from seed, and to that lady are we indebted for specimens. It flowers in January.

Fig. 1. shews the calyx cut open, with the five little hooded petals arched over the stamens.

A neat little greenhouse shrub, requiring about the same treatment as Cape Heaths. It should be potted in a soil composed of sandy peat, and a small portion of loam, with plenty of drainage. It is increased by cuttings of the young shoots in the early part of summer; they must be put in sand, and covered with a bell-glass, and have a slight bottom heat.

*ABUTĬLON vitifolĭum.

Vine-leaved Abutilon.

MONADELPHIA *POLYANDRIA.*

Nat. ord. MALVACEÆ.

ABUTILON, Gærtn. *Involucellum* nullum. *Calyx* quinquefidus, sæpius cupulæformis, laciniis æstivatione valvatis. *Corollæ* petala 5, hypogyna, obovata, sæpius inæquilatera, unguibus imo tubo stamineo adnata, æstivatione convolutiva. *Tubus stamineus* basi dilatata fornicata ovarium obtegens, superne angustatus, columnæformis, apice in filamenta plurima, filiformia divisus, rarius simul infra apicem antherifer; *antheræ* reniformes, sinu affixæ, versatiles, rima semicirculari apertæ, bivalves, septo manifesto. *Ovarium* sessile, quinque-multiloculare. *Ovula* in loculis 4-9, angulo centrali inserta, adscendentia et pendula. *Styli* loculorum numero, filiformis, basi plus minus coaliti; *stigmata* capitata. *Capsula* penta-polycocca, coccis haud secedentibus, apice introrsum rima apertis. *Semina* in loculis pauca v. abortu solitaria, reniformia v. subhippocrepica, *testa* crustacea, emarginaturæ sinu umbilicata. *Embryo* intra albumen parcum, subcarnosum homotropè arcuatus; *cotyledonibus* foliaceis, petiolulatis, basi auriculatis, sese plicato-involventibus.——Herbæ, suffrutices *v.* frutices, *nonnullæ* arbores, *in regionibus tropicis et subtropicis totius orbis crescentes;* foliis *alternis, petiolatis, cordatis dentatis, v. rarissime obsolete lobatis,* stipulis *lateralibus geminis,* pedunculis *axillaribus, solitariis v. pluribus, uni-multifloris, infra apicem articulatis, interdum* floribus *spicatis v. racemosis, rarissime corymbosis.*—Endl. gen. 5292.

A. *vitifolium;* foliis cordatis 5-7-lobatis lobis acuminatis serratis, pedunculis petiolo longioribus ramoso-umbellatis, carpellis 9 apice longè biaristatis.—*DeCand. Prodr.* 1. 472. sub Sida.
Abutilon vitifolium, *Presl. reliq. Hænk.* 2. 116.
Sida vitifolia, *Cav. ic.* 5. 428.

This fine Malvaceous plant is a native of Chili, whence it appears to have been introduced about the year 1836, by Captain Cottingham of Dublin. It was noticed in this work in July 1840, when it was stated that it had proved quite hardy in Ireland, having stood in a south border, without protection for three years. Under such circumstances it must be a noble looking shrub, for it is said to maintain a stature of six feet, and to become one mass of blossom.

With us in England it does not however prove fit for the open ground.

It may be grown in a large pot or tub, but where it can be planted out in a conservatory bed it will succeed much better. The soil most suitable is heath mould mixed with silver sand. Being a greenhouse plant, air should be given at all times when the weather is favourable, and it must be exposed as much to the light as possible. It is propagated from cuttings in the usual way.

The worst of the plant is that it occupies a great deal of room, and therefore can only be grown in large houses, and it is, like all its family, a favourite resort of red spider. When however the first is of no consequence, and the second can be kept down, it is well worth growing; for we have few plants whose flowers form such broad gay masses.

Miss Drake del. Pub by J. Ridgway 169 Piccadilly Nov 1 1844 G. Barclay sc.

HOVEA ilicifolia.

Holly-leaved Hovea.

DIADELPHIA *DECANDRIA.*

Nat. ord. Leguminosæ. § Papilionaceæ.
HOVEA. *Supra, vol.* 4. *fol.* 280.

H. *ilicifolia;* ramulis tomentosis, foliis coriaceis ovalibus spinoso-dentatis mucronatis pungentibus subtus reticulatis stipulis spinescentibus, pedunculis 2-3-floris, calycibus tomentosis, bracteolis pungentibus glabris, legumine subrotundo glabro.

H. ilicifolia, *Allan Cunningham in herb-nostro.*

Folia *juniora leviter pubescentia.* Flores *atro-violacei inter minores.* Ovarium *dispermum.*

This is one of the less attractive species of the genus, for which we are indebted to Robert Mangles, Esq. who raised it from Swan River seeds, and flowered it last April.

It cannot be the Plagiolobium ilicifolium of Sweet, if that plant is rightly described with a downy pod, for this has one perfectly smooth. At all events it is most certainly a *Hovea*, and the species named by Allan Cunningham *ilicifolia*, as is proved by one of his specimens from King George's Sound, now before us.

It is a green-house shrub, requiring the same treatment as *H. Celsi.* It should be potted in heath mould mixed with one-fourth silver sand. The pot should be well drained, and a few pieces of potsherds mixed through the soil. In summer water should be liberally given, and as much air as possible. In winter it should be placed in some airy place, and watered only in fine weather. Fire heat should never be applied except to keep off frost. It is multiplied from seeds.

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CHIRĪTA sinēnsis.

Chinese Chirita.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. CYRTANDRACEÆ.

CHIRITA, *Buchanan.* *Calyx* 5-fidus, æstivatione valvata. *Corolla* tubulosa, bilabiata. *Stamina* 2 antherifera; *antheræ* (sæpius barbatæ) loculis divergentibus. *Stigma :* labio superiore abortiente v. nano; inferiore 2-lamellato. *Capsula* elongata, valvis striatis. *Semina* inappendiculata, pendula.——Herbæ *v.* suffrutices; foliis *oppositis sæpius inæqualibus, altero in quibusdam nano v. abortiente ; pedunculis axillaribus.*—Brown in Horsfield Pl. Javan. p. 116.

C. *sinensis ;* acaulis, foliis pilosis oblongis obtusis crenatis in petiolum angustatis, pedunculis erectis subbifloris, corollæ laciniis obtusis callis duobus linearibus in labium inferius altero lato obtuso in superius, antheris imberbibus.

This charming little greenhouse plant is one of the first results of any importance, from the voyage to China, by Mr. Fortune, on account of the Horticultural Society. It was sent home in a wooden case, and its beautiful large lilac foxglove-like flowers were open when it arrived.

We were accidentally unable to describe the flowers, for whose structure we are therefore obliged to trust to our artist, who we hope has been correct in the drawing. From this it appears that the plant belongs to the genus Chirita, distinguished from Didymocarpus by its stigma, having the upper lip abortive, and the lower two-lobed.

Those who see what this is may judge how desirable it would be to obtain from India the other species of the genus, among which are some still finer. And they are all so easily cultivated, that they are just the things to introduce into gardens. Anybody who can grow a Gloxinia can manage a Chirita.

Fig. 1. represents a section of a corolla; 2. the ovary; and 3. its section.

It appears to be a stove plant, requiring to be potted in a compost of peat loam and sand, in equal proportions. During the summer season an ample supply of water should be given to its roots, taking care to wet the leaves as seldom as possible. In winter, water once a week will be quite sufficient. It may be propagated from leaves, cut at the base of the veins, and laid down on a pot filled with silver sand.

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* ANGULŌA uniflōra.

One-flowered Anguloa.

GYNANDRIA *MONANDRIA.*

Nat. ord. Orchidaceæ. § Vandeæ. || Maxillaridæ.

ANGULOA, *Fl. Peruv. prodr.* 118. *t.* 26. *Flores* subglobosi, nunquam patentes. *Sepala* lateralia invicem imbricantia, basi valde convexa, nec in cornu producta; alterum nunc anticum nunc posticum, conforme, basi planum. *Petala* sepalo dorsali æqualia, et similia. *Labellum* coriaceum, unguiculatum, subconvolutum, trilobum, laminâ carnosâ latâ planâ supra medium auctum, hinc quasi bilabiatum. *Columna* teres, clavata, libera; *clinandrio* nunc mutico, nunc laciniâ acutâ porrectâ utrinque aucto. *Anthera* galeata, valvis membranaceis nunc in lacinulas acutas productis. *Pollinia* 4, plana, inæqualia, *caudiculâ* longâ lineari, et *glandulâ* acutâ.——Herbæ *epiphytæ Granatenses & Peruvianæ*, Lycastes *facie.*

A. *uniflora*; pedunculo unifloro radicali squamis 2 inflatis imbricatis vaginato, flore bracteâ spathaceâ herbaceâ parum longiore, sepalis lateralibus anticis petalisque acuminatis, labelli glabri lobo medio angustissimo reflexo lateralibus rotundatis, laminâ appendiculari retusâ duplò latiore, clinandrio lacinulis 2 acutis aucto.

A. uniflora, *Fl. Peruv. syst. p.* 228 *Lindl. gen. & sp. Orch. p.* 160.

We some time since announced the appearance in this country of a new species of the long lost genus Anguloa, concerning which so many mistakes have been made. We are now able, by the kindness of Mr. Barker of Birmingham, to publish the very Anguloa uniflora itself, which he was so fortunate as to flower in April last. We believe he received it among Linden's collection in Columbia; according to Ruiz and Pavon it is found in precipitous places about Muña and Chincao in Peru, and profusely in the woods of Tarma, where it is called *Carpales.*

It is a sweet-scented plant, with large white flowers slightly tinged with yellow, and the whole habit of a Lycaste,

* Dedicated to Don Francisco de Angulo, director-general of the mines (of Peru), and greatly attached to Botanical pursuits, (*Ruiz & Pavon.*)

to which genus this approaches very nearly. In what respect it differs we shall endeavour to show next number, upon figuring Anguloa Clowesii ; a species remarkably different in some respects.

Fig. 1. represents a section of the labellum, with the plate that lies over the middle cut in two. Fig. 2. shows the column with the two thin sharp-pointed processes which project forward ; it will be remarked, upon comparing this figure with that in the centre of the flower, that there are in the latter two additional plates, looking like lappets. Those bodies were missing in the first flower that we saw, and were only present in the second; they belong to the sides of the anther, and are, it is to be supposed, accidental developments. Fig. 3. shows the pollen-masses, with their caudicle and glands.

61

HYDRANGEA japonica.

Japan Hydrangea.

DECANDRIA *TRIGYNIA.*

Nat. ord. SAXIFRAGACEÆ—HYDRANGEÆ, *DC.*

HYDRANGEA, Linn. *Flores* omnes, fertiles, v. marginales steriles. *Floribus sterilibus : Calyx* membranaceus, venosus, explanatus, quadri-quinquepartitus. *Corollæ* et *genitalium* rudimenta. *Floribus fertilibus : Calyx* tubo cum ovario connato, costato, limbo supero, quadri-quinquedentato. *Corollæ* petala 4-5, annuli epigyni margini inserta, sessilia, ovata, æstivatione valvata. *Stamina* 8-10, cum petalis inserta; *filamenta* filiformia; *antheræ* biloculares, longitudinaliter dehiscentes. *Ovarium* inferum, biloculare, placentis dissepimenti superne interrupti marginibus adnatis, multiovulatis. *Styli* 2, distincti; *stigmata* subterminalia, introrsum lateralia. *Capsula* calycis limbo stylisque coronata, basi bi-superne subunilocularis, vertice deplanato inter stylos foramine aperta, semiseptis margine placentiferis. *Semina* plurima, adscendentia, testa membranacea, adnata, reticulata. *Embryo* in axi albuminis dense carnosi orthotropus; *cotyledonibus* brevissimis, obtusis, *radicula* cylindrica, infera.——Frutices, *in America boreali, Nepalia et Japonia indigeni;* foliis *oppositis, petiolatis, ovatis v. oblongis, integerrimis v. sæpius dentatis aut serratis,* floribus *corymbosis, albis v. roseis, marginalibus plerumque sterilibus, radiantibus, coloratis.*—Endl. gen. 4668.

H. *japonica;* foliis oppositis breviter petiolatis e basi rotundata v. latè cuneatâ ovato-oblongis acuminatis argutè serrulatis glabris, cymæ planæ densæ ramis pubescentibus, florum radiantium 4-6 pedunculis horizontaliter patentibus, sepalis plerumque 4 obovato-rhombeis acuminatis serratis.—*Siebold fl. japon.* 1. 106. *t.* 53.

Japan seems to abound with Hydrangeas, Siebold having described as many as fourteen from that country. In this respect, as in many others, we have the indication of a near relation between the flowers of Japan and North America.

It does not, however, appear that they are very handsome, and in this respect too they agree with the American species, with the exception of H. Otaksa, which seems to be hardly different from H. hortensis. The greater part of them are like this, and some are not so pretty. The most interesting among them are *H. Belzonii*, a plant with the habit of

H. arborescens, but with large blue flowers ; and H. *stellata* whose barren flowers are double, and light blue or pink.

According to Siebold this *H. japonica* has two varieties, called *Benikaku*, with rose-coloured flowers ; and *Konkaku*, with pale blue flowers. It does not grow more than two feet high at the most, branched from the very bottom. The Japanese cultivate it commonly in their gardens. It is found wild on the mountains of Nipon.

A hardy shrub, very much resembling, and requiring the same kind of treatment as, the common Hydrangea hortensis. It grows freely in a mixture of loam and sandy peat, to which is added a small portion of decayed cow-dung.

It is easily increased by cuttings of the young wood, after the plant has flowered in July. The cuttings should be put in sand, and placed in a mild heat, and kept close for two or three weeks. It flowers from May to July, and was presented to the Society by Mr. H. Low, of Clapton, who imported the first plants.

2

GAYLUSSACIA Pseudovaccinium.

Bilberry-like Gaylussacwort.

DECANDRIA *MONOGYNIA.*

Nat. ord. VACCINACEÆ.

GAYLUSSACIA, Humboldt, Bonpland, & Kunth. *Calyx* ovario adnatus, limbo libero quinquefido. *Corolla* tubulosa, basi ventricosa, ovata aut subglobosa, limbo 5-fido. *Stamina* decem, limbo calycis inserta. *Antheræ* muticæ, apice in tubulos duos productæ. *Stylus* erectus. *Stigma* depresso-capitatum. *Drupa* subglobosa sulcato-decagona calyce vestita decem-locularis, loculis monospermis. *Semina* lenticularia lævissima. *Spermodermium* tenuissimum albumini arcte adhærens. *Albumen* semini conforme, carnosum. *Embryo* centralis axilis teres, albumine brevior.——Frutices *ramosi.* Folia *sparsa apice mucronato-glandulosa.* Racemi *axillares approximati.* Flores *bracteati, coccinei.*—DeCand. Prod. 7. 556.

G. *Pseudovaccinium;* fruticosa glaberrima pubescensve, foliis ellipticis lanceolatis, racemis secundis erectis bracteatis, corollis cylindraceis, ovario glabro v. glabrescente.—*DeCand. l. c.*

G. Pseudovaccinium, *Chamisso & Schlechtendahl in Linnæa,* 1. 530., 8. 492. *Aug. de St. Hilaire,* 2. 406.

Andromeda coccinea, *Schrader in Götting. Anz.* 1821. ii. 709.

Vaccinium brasiliense, *Spreng. Syst.* ii. 212.

The genus Gaylussacia, so named after M. Gay Lussac, the eminent French Chemist and Philosopher, differs from Vaccinium in the same way as Arctostaphylos from Arbutus—it has but a single seed in each cell. The species are chiefly found in Brazil, where they are common, Peru, and the North of India, and among them are several which, as this species shews, would be worth introducing to cultivation.

G. Pseudovaccinium is stated to be a native of sandy open plains in Brazil. Auguste de St. Hilaire says that he found it on the coast from the city of Caravellos in the Province of Porto Seguro as far as the island of St. Catharine, and that it forms a shrub from one to two and a half feet high. At least it is to be presumed that this is the plant he means,

although he describes the corolla as somewhat narrow, and the ovary as 5-celled with 1-seeded cells; for the flowers are, in our figure, much too globular, and M. de St. Hilaire adds, that the fruit of his plant has *ten* ribs when dry in consequence of its containing *ten* seeds; whence it is evident that his account of the ovary is erroneous.

The accompanying drawing was made at Messrs. Loddiges, in May, 1844.

Fig. 1. represents a stamen; 2. a transverse section of the ovary.

It is a hardy and very pretty greenhouse shrub, which should be grown in a mixture of sandy peat and leaf mould, and treated in the same way as Cape Heaths. It may be increased either by seeds or by layers. Seeds should be sown in pans filled with sandy peat about February, and covered with a bell-glass. The layering should be effected before the plant commences its fresh growth.

ANGULŌA Clowēsii.

Mr. Clowes's Anguloa.

GYNANDRIA *MONANDRIA.*

Nat. ord. Orchidaceæ. § Vandeæ—Maxillaridæ.
ANGULOA, Supra t. 63. *hujus voluminis.*

A. *Clowesii* (Lindl. in Bot. Reg. 1844. misc. 29.); pedunculo unifloro radicali laxè squamato, flore carnoso resupinato, sepalis petalisque ovatis convexis conniventibus, labelli trilobi lobo medio piloso infundibulari bilabiato: labio altero emarginato altero tridentato, columnâ integrâ.

Among a lot of plants collected in Columbia by Linden in 1842, this fine thing was received by the Rev. J. Clowes of Broughton Hall near Manchester, with whom it flowered for the first time in Europe in March, 1844. The old plants had as many as five flower-scapes to a pseudo-bulb. Thus, by the enterprise of a few English gentlemen, who had the spirit to defray the cost of a collector in the rich country once known as the kingdom of New Granada, has one of the greatest botanical puzzles been at last obtained. Mr. Barker's species was figured last number, that before us is from Mr. Clowes, and a third species, with spotted flowers, still undescribed, has blossomed with Mr. Rucker, all of whom were the supporters of Mr. Linden's expedition.

The two characters upon which the authors of the Flora Peruviana must be considered as having most relied for the distinction of their genus Anguloa, were the "chrysalis-shaped" lip, and the two-horned column.

But that rolled up form of the lip, to which the name chrysaloid was applied, is in reality common to the greater part of the Maxillaridous division; and the two horn-like processes which distinguish the column of the original Anguloa are altogether of too doubtful a nature to be relied on for generic distinction; for they have no relation to such organs as the wings of Oncidium, and it is by no means

certain that they are constantly present in the same species. If, as seems probable, they are analogous to the cirrhi of a Catasetum, experience warns us to distrust their importance.

This being so, it becomes a question whether the genus is distinct from Lycaste, to which it undoubtedly approaches very nearly. The pollen-masses and gland of the two, although dissimilar, if A. Clowesii is compared with Lycaste Deppii, are nevertheless not so different when A. uniflora is the subject of comparison. The funnel-shaped condition of the middle lobe of the lip is at first sight peculiar to Anguloa, but it is in reality only an exaggerated condition of that kind of lip which we have in L. aromatica and its allies, in which there is a large flat appendage resting on the surface of the lip; the main difference consists in that appendage being attached to the lip at the base only, while in Anguloa it is united by the sides also. This, however, is a difference which may be regarded as available for generic distinction. The main difference, however, between *Anguloa* and *Lycaste* consists in this; that in *Lycaste* the lateral sepals are placed edge to edge in the manner of a true *Maxillaria*, but in *Anguloa* they overlap each other very considerably; this peculiarity causes a striking difference in the appearance of the flowers of the two genera, and, in fact, gives that of Anguloa somewhat the look of a Mormodes.

What Anguloa squalida of Pöppig may be, I cannot say. I have never seen the plant, and the barbarous analyses given by that author preclude all hope of coming to any conclusion about it. It may, however, be safely asserted that no such plant exists as is represented by Mr. Pöppig.

Fig. 1. represents the lip of this plant cut through the axis, to shew its funnel-shaped structure; 2. is the pollen apparatus, two of the pollen-masses being half cut away.

64

DIPLADENIA crassinoda.

Knob-jointed Dipladenia.

PENTANDRIA *MONOGYNIA.*

Nat. ord. APOCYNACEÆ.

DIPLADENIA, Alph. D.C. *Calyx* 5-partitus, lobis basi interne utrinque 1-2-glandulosis; glandulis nunc ligulatis vel squamosis. *Corolla* hypocraterimorpha vel tubo basi cylindrico et superne infundibuliformi, circa originem staminum hispida; fauce exappendiculata; lobis æstivatione sinistrorsum convolutis. *Antheræ* subsessiles, in superiore parte tubi vel medio aut sub media parte ubi tubus latior fit insertæ, sagittatæ, medio stigmati adhærentes, apicæ acuminatæ vel membrana acuta terminatæ. *Glandulæ* nectarii 2, cum ovariis alternantes, obtusæ, singulæ a duabus connatis plerumque constantes, quinta glandula in Echite uno ex ovariis opposita deficiente. *Ovaria* 2, nectario sæpius longiora. *Stylus* 1. *Stigma* globulosum, inferne membrana reflexa umbraculiformi (an semper ?) stipatum. *Folliculi* et *semina* ut in Echite.——Frutices *scandentes, vel sæpius suffrutices aut herbæ basi suffrutescentes erectæ,* Americæ meridionalis incolæ foliis *oppositis, integris, sæpe angustis, utrinque basi setis glandulisve pluribus loco* stipularum *stipatis,* pedicellis *axillaribus, nunc in* racemum *terminalem approximatis, floratione centripeta;* corollis *sæpius purpureis.*—Alph. DeCand. Prod. 1. 481.

D. *crassinoda;* glaberrima, caule ramoso nodoso, foliis lanceolatis acutis v. acuminatis basi acutis utrinque nitidis coriaceis, racemis axillaribus compressis subsexfloris elongatis, lobis calycinis lanceolatis acuminatis tubi parte cylindricâ paulò brevioribus pedicello duplo tripove brevioribus, corollæ tubo infra medium campanulato, lobis obovato-orbicularibus.—*Alph. DC. l. c.* 486.

Echites crassinoda, *Gardner in Hook. Journ. bot.* 1. 544.

Echites carassa, *Hort.*

Mons. Alphonse DeCandolle in his monograph of the Apocynaceous order, has separated various plants from the old Linnæan genus Echites, and among others the *E. splendens* and *atropurpurea*, two well known garden species, which he places in a genus called Dipladenia, from διπλος, double, and ἀδην, a gland, in allusion to the two tubercles which are found at the base of their ovary. This genus, to which twenty species in all are referred; also contains the plant

now represented, whose resemblance to E. splendens must strike every one.

It is a native of the more elevated parts of the Corcovado mountain near Rio Janeiro, where it was found by Mr. Gardner. It differs from D. splendens in its smaller and more richly coloured flowers, in the form of its leaves, which are smaller and not cordate at the base, and in its having at the insertion of the leaves a ring of fleshy hard teeth, which stand in the room of the glands, or raised lines found in allied species.

The accompanying figure was made from a specimen which flowered with R. G. Loraine, Esq. of Wallington, and which gained the Horticultural Society's Silver Knightian medal in October last.

Fig. 1. shews the ovary, and one of the two glands that peculiarize the genus.

It is a stove twiner, and requires to be treated in a similar manner to D. splendens: viz. to be potted in rough heath mould, mixed with about one-fourth silver sand. In summer it should be grown in a damp atmosphere, and be amply supplied with water, but in winter it must be kept rather dry, otherwise it will be apt to damp off. It may be propagated by cuttings in the usual way.

Piccadilly Dec. 1 1844

ANEMŌNE obtusilŏba.

Dr. Govan's Anemone.

POLYANDRIA *POLYGYNIA.*

Nat. ord. RANUNCULACEÆ.

ANEMONE, Botanical Register, vol. 3. *fol.* 200.

Sect. HOMALOCARPOS.

Caryopsides compresso-planæ ovali-orbiculatæ glabræ, ecaudatæ; pedicelli umbellati aphylli 1-flori.—DeCand. Prodr. 1. 21.

A. *obtusiloba;* villosa, foliis subrotundis cordatis trilobis grossè inciso-crenatis, umbellâ paucíflorâ, sepalis obtusis dorso pilosis, involucri foliolis foliaceis supremis cuneatis trilobis, carpellis pilosis.

A. obtusiloba, *Don prodr. fl. nep.* 194. *Royle Illustrations, p.* 52. *Walpers Repertorium,* 1. 29.

A. Govaniana, *Wall. Cat. no.* 4688. *Supra, misc.* 59. *hujus voluminis.*

This pretty Indian alpine herbaceous plant has been already noticed at p. 45 of the Miscellaneous matter of the present volume, under the name of *A. Govaniana,* which is what Dr. Wallich called it. It, at the same time, escaped my observation that Professor Royle had determined that species to be the same as *A. obtusiloba* of Don, which name must take precedence. It is nearly allied to A. narcissiflora, which is however readily distinguished by its short flower-stalks, and deeply divided leaves.

The native situation of the species is stated by Dr. Royle to be the Choor mountain of the Himalayas, at elevations of from 10,000 to 12,000 feet, flowering in May. In cultivation it proves to be a hardy little alpine plant, growing about six inches high, and well suited for pots, or a rockwork where the situation is rather shaded and damp. It is easily increased from seeds, which should be sown early in spring, in a soil composed of sandy peat and leaf-mould, and a small portion of loam; afterwards, when the young plants are large enough, they should be potted singly in very small pots, and kept in a

cold frame, with the back turned to the sun during the summer. Afterwards they may be treated in the ordinary way, but they will not flower before the second season. June and July are the blowing months.

It was raised from seeds received by the Horticultural Society from the Honorable Court of Directors of the East India Company.

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IXIOLIRION montanum.

Mountain Ixia-lily.

HEXANDRIA *MONOGYNIA.*

Nat. ord. AMARYLLIDACEÆ. *Divisio,* CAULESCENTES.

IXIOLIRION. *Cormus* tunicatus. *Caulis* foliifer pedunculis axillaribus et terminalibus bracteatis. *Perianthium* sexfidum angustè infundibuliforme superne reflexè patens. *Filamenta* recta. *Antheræ* parte inferiore affixæ rectæ serius versatiles. *Stylus* rectus. *Capsula* oblonga chartacea vix operculata. *Semina* testâ nigrâ. *Habitat montes Syriæ, Persiæ septentrionalis, &c.*—W. H.

I. *montanum ;* cormo nuciformi tunicis duris membranaceis obscurè brunneis ; foliis amplexicaulibus profundè canaliculatis acuminatis 6-11-uncialibus ⅜ unc. latis glaucis ; caule subsesquipedali bracteis foliiformibus gradatim minoribus inferne alternis superne sæpius oppositis pedunculis axillaribus 1-3-floris ; germine viridi declinato, perianthio 1⅞ unc. saturatè cœruleo-purpurascente laciniis inferne plùs minùs subalbescentibus, capsulâ oblongâ trisulcâ sulco nervato, loculis extus dorso trinervi rotundato, operculo brevissimo dehiscente dissepimento axe persistenter 3-apiculato, seminibus suberectis vix biseriatis testâ nigrâ ultra hilum attenuatè productâ angulatè oblongis chalazâ rugosâ depressâ hili puncto albescente.—*W. H.*

Ixiolirion montanum, *Herbert Append. Herb. Amaryll.* 125.
Amaryllis montana, *Red. Lil.* 241. *Labill. Syr. dec.* 2. *p.* 5. *t.* 1.
Amaryllis tatarica, *Pallas, vol.* 3. *D.* (fide Fischeri in litt.)

This long-desired and very ornamental plant was sent to Spofforth by the kindness of J. Cartwright, Esq. He received it at Constantinople from Colonel Shiel, who with equal kindness exerted himself to discover it, where it was found, on the hills in the neighbourhood of Teheran. The bulbs are very remarkable, looking rather like large nuts with a dark chocolate-coloured smooth coat. When they are ready to vegetate, the fibres prepare to burst out at bottom with the same appearance as those of a tulip. The plants are perfectly hardy ; for, having produced leaf in the autumn, and their growth having been encouraged by the unusual mildness of the first portion of the winter, they were not in the least discoloured by the snow and the very severe frosts of February ;

and, having flowered beautifully in May and June, they perfected good seed in July. Whether or not it will be the better to take up the bulbs to be dried in summer and reset in the autumn, is not yet ascertained; but it will probably not be necessary.

Ixiolirion Tataricum is distinguished from montanum by expanded rotate flowers, not tubularly closed in the lower part, and circinate anthers, and is confined to the Altaic region, while montanum extends from Syria to the southern part of Songaria. Dr. Fischer has named it I. Ledebouri, referring to Amaryllis Tatarica, Led. Fl. Altaica, but the plant had been previously figured, Herb. Am. pl. 19. & pl. 20. f. 1., as Ixiolirion Tataricum from Altaic specimens, of which Dr. Fischer is now aware.—W. H.

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TETRATHĒCA hirsūta.

Hairy Tetratheca.

OCTO-DECANDRIA *MONOGYNIA.*

Nat. ord. TREMANDRACEÆ.

TETRATHECA, Smith. Calyx 4-5-partitus. *Petala* 4-5. *Stamina* 8-10; *antheræ* biloculares, loculis sæpe biloculatis, tubulo apicis dehiscentes. *Ovarium* biloculare, loculis biovulatis. *Stylus & stigma* simplex. *Capsula* bilocularis, compressa, loculicidè bivalvis. *Semina* in loculis solitaria, inversa.——Frutices *ericoidei, interdum juncei;* foliis *parvis, alternis, verticillatisve, sæpe pilis glandulosis conspersis v. setosis.*—Endl. Gen. 5644.

T. *hirsuta;* ramis tomentosis nunc setosis, foliis oblongis sparsis oppositisve subtus tomentosis supra hispidis, pedunculis setosis scabrisve, floribus pentameris —*Lindley, Sketch of Swan River Flora, p.* xxxviii.
Tremandra Hugelii, *Hort.*

Where the name has been published which this pretty greenhouse plant bears in our gardens I have failed to ascertain. It is certainly no other than Tetratheca hirsuta, and by no means a Tremandra, if, as seems clear, the essential character of that genus consists in its anthers not terminating in a tube nor opening by a pore at the point.

Messrs. Rollissons received it from Baron Hugel in the summer of 1843, and flowered it last March, when the accompanying drawing was made; it has since spread to many collections.

Fig. 1. represents the stamens, with the calyx and corolla removed; 2. is an ovary, style, and stigma, with one side of a cell cut away to shew the curious ovule with its hooked point.

It is a very nice greenhouse plant, gay with purple starry blossoms. It grows freely in a compost of peat loam and sand in equal proportions, and if a few potsherds are mixed with it so much the better. In summer plenty of air and water should be given, and shade in sunny weather. In

winter the plant should be placed in some airy part of the house where it will be secure from damp. Fire heat should not be applied except to keep off frost. It may be propagated by cuttings in the usual way.

MISCELLANEOUS MATTER

OF THE

BOTANICAL REGISTER.

1844.

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1. CŒLOGŸNE fuscescens.

Lindl. Gen. & Sp. Orch. p. 41.

A plant of this rare species flowered at Sion in the end of last November. Its blossoms are perhaps the largest in the genus, but want the brilliancy necessary to render them very striking. They are of a pale greenish yellow, without any markings except on the lip, which has a few brown spots towards the base, a broad brown band along the middle of each side lobe, and three vermilion coloured streaks in the centre. We fear that brighter suns than those of November will hardly destroy the green sufficiently to render this comparable with some species, notwithstanding its large flowers.

2. LÆLIA virens.

L. *virens;* sepalis suberectis ovatis petalisque lanceolatis subæqualibus, labello oblongo obsoletè trilobo cucullato apice ovato crispo lineâ obsoletâ elevatâ versus basin, columnæ cardine unidentato.

A Brazilian plant, of which I have only seen a single flower. Mr. Loddiges, whose number 647 it is, informs me that it has quite the habit of Cattleya crispa. The flowers are very pale yellowish green, of no beauty, and about the size of Maxillaria alba, which they are something like. The number of pollen-masses is certainly eight, which makes the plant a Lælia and not a Cattleya.

3. WARRĔA cyanĕa.

W. *cyanea;* spicâ brevi, bracteis ovarii longitudine, sepalis ovatis acutis, petalis subconformibus, labello subrotundo-cuneato apiculato undulato lineis quinque elevatis.

The purest blue known in the vegetable kingdom colours the lip of this beautiful flower, which is otherwise white. It has quite the habit of Warrea tricolor, but is very much smaller in all its parts. Its most distinctive character is found in the form of its lip, which has a distinct point, and five ribs, not three, near the base. Messrs. Loddiges imported it from Columbia, and it is no. 860 of their last catalogue.

4. HEXADESMĬA crurigĕra.

(Hexopia crurigera, *Bateman mss.*)

H. *crurigera;* caule fusiformi, foliis exacte linearibus, racemis flexuosis paucifloris, bracteis ovatis membranaceis, mento valdè producto, labello obovato altè bilobo.

A small-flowered inconspicuous Epiphyte, of no beauty, introduced from Guatemala to Mr. Bateman, with whom it flowered some years since, when it received the name of Hexopia. Its flowers are not half the size of H. fasciculata.

5. HEXADESMIA micrantha.

H. *micrantha;* racemo multifloro, bracteis linearibus acuminatis membranaceis, sepalis acuminatis, labelli trilobi laciniis lateralibus rotundatis intermediâ apiculatâ.

The flowers of this are very much smaller than even those of H. crurigera, and white with a very little green. It is from Guatemala, and is the no. 389 of Messrs. Loddiges' catalogue.

6. ALSTRŒMERIA Chorillensis.

A. *Chorillensis;* supra 1843, misc. 95, *et cum icone sub nomine* A. lineatifloræ, 1843, 58; *una eademque est,* foliis oblongis obtusis basi angustatis nitidè glaberrimis.

A. *lineatiflora;* Flor. Peruv. 3. 60. 289 (A. ligtu v. 2. lineatiflora, Herb. Am. 92. quoad A. ligtu Feuillé, Obs. 710.) foliis ovatis acutis ferè biuncias latis, planta Chilensis valida foliosissima.

The plant figured above, 1843, 58, is the identical species described in the same vol. Misc. 95, under the name A. Cho-

rillensis, and grows on the heights near the coast of Peru, a little to the N. of Lima, at Chorillos, intermixed with a Pitcairnia and a white Anthericum. A. lineatiflora of Ruiz is a vigorous Chilian (not a Peruvian) plant, with acute oval leaves an inch and three quarters wide. There can be no doubt of the difference between the Chorillensis and the Ligtu of Bot. Reg. 1839, 13; but the form and texture of the leaves separate Chorillensis more widely from Ruiz's lineatiflora, which is not stated to have glossy leaves. I consider the Ligtu of the Bot. Mag. not to be the true plant of Feuillé, which I still hope to obtain from Conception, whence we have had few plants; and I have long named it A. Lindleyana, allied to A. pulchra, not, as printed by mistake, 1843, misc. 94, to pulchella.—W. H.

7. CROCUS vernus.

It is stated by Dr. B. Biasoletto of Trieste (*Relazione, &c.* 1841) that Crocus vernus, which appears always to affect very elevated flat places, is found in profusion in Dalmatia, on a flat between the highest point of the Triglaw, and of Sweti Jure (St. George) which is 5521 feet high, flowering amidst withered grass in June. He also cites C. biflorus *Mill.* C. Pallasianus, and C. minimus of Rchb. ic. pl. cit. as found in either Istria or Dalmatia; but the accurate recognition of the species may perhaps be doubted. W. H.

8. CROCUS Cartwrightianus.

Supra 3.

Our colourer has inadvertently left out the purple star and prolonged purple lines on the inside of this flower, and the dark purple lines at the base of the limb of C. Pallasianus.

9. MAXILLARĬA Melēagris.

M. *Meleagris;* caulescens; pseudobulbis ovalibus ancipitibus, foliis solitariis angustis obtusis emarginatis undulatis, sepalis petalisque acuminatis, labelli oblongi lobo medio subemarginato sub apice carinato lateralibus nanis duplò longiore, tuberculo transverso subcrenato basi 3-costato.

A caulescent species of little beauty. Its flowers are spotted with purple upon a yellowish white ground; the lip is dark purple. Our specimen is from Messrs. Loddiges, who imported it from Oaxaca. We have also received it from Mr. Brocklehurst's garden at the Fence.

10. TROCHETIA grandiflora.

Bojer's MSS.?

This is a very handsome stove shrub which was received, under the name it now bears, from the Mauritius in 1839, by His Grace the Duke of Northumberland. It has oblong dark green leaves covered over on the under side with brown hairy stars. The flowers are large, white, quite pendulous, and appear in threes. We regard it as a great acquisition. The name is probably one of M. Bojer's; for we do not find it in the most recent compilations of species. A figure of it will soon appear in our pages.

11. ONCIDIUM oblongatum.

O. *oblongatum;* facie et structurâ O. reflexi; sed petalis oblongis obtusis apiculatis patulis planis, labello altè bilobo, columnæ alis rotundatis crenulatis dimidiatis.

It is almost impossible to find words that will well distinguish the Oncidiums allied to O. reflexum; and yet they appear to merit distinction. This, which is from Messrs. Loddiges, has very much the appearance of O. Wentworthianum, with the same clouded pseudo-bulbs and speckled flower-stem; but its petals are perfectly flat, not at all reflexed or wavy, obtuse with a little point and clear yellow, with a few reddish brown bars near the base. It is a very handsome species, on account of its flowers having as much yellow in them, and being as large, as the best variety of O. sphacelatum.

12. MAXILLARIA concāva.

M. *concava;* acaulis, racemosa, pseudobulbis oblongis altè sulcatis, foliis gesmini 3-costatis nitidis in petiolum angustatis, bracteis setaceis, sepalis

lateralibus falcatis acuminatis sub apice carinatis, petalis duplo minoribus obtusis apice plano-convexis, labello oblongo obsoletè trilobo apice carnoso concavo rotundato extùs scabriusculo, tuberculo lineari apice obtusè 3-dentato.

At first sight this species might be mistaken for M. *bractescens;* but its flowers are smaller; the bracts very small and setaceous, and the lip of quite another form. It has little beauty, and was found in Guatemala by Mr. Hartweg, by whom it was sent to the Horticultural Society in 1841.

13. BRASSIA.

This genus consists of American Epiphytes, with pseudobulbs and a radical spiked inflorescence, of which many species are in our gardens. Its great features are a very dwarf wingless column, a sessile flat undivided labellum, with two (or occasionally more) short plates at its base, and a spreading perianth. Recent discoveries have considerably enlarged it, so that from consisting of a single species, as it did when first defined in 1813, or of two, as was the case when the Genera and Species of Orchidaceæ were published in 1833, we have now fourteen well defined and clearly known. Of these the following is an enumeration:

1. B. *Lanceana* (Lindl. in Bot. Reg. t. 1754.); sepalis lateralibus elongatis labello oblongo undulato acuminato subrepando vix duplò longioribus: callo baseos simplici canaliculato truncato pubescente dentibus 2 liberis membranaceis in fronte.——*Surinam.*——A charming species, with bright yellow flowers spotted with lively brown, and very sweet-scented.

2. B. *Lawrenceana* (Lindl. in Bot. Reg. 1841. misc. 6. t. 18.); sepalis lateralibus elongatis labello oblongo apice lanceolato subundulato plus duplò longioribus: callo baseos simplici canaliculato truncato pubescente.——*Brazil?*——This plant is I fear only a variety of the last, and is perhaps from the same country, for there is no proof of its being Brazilian, as is stated. The principal differences that distinguish it from B. Lanceana are, the lateral sepals being more than twice as long as the lip, and the want of free extra tubercles in front of the callus at the base of the lip. The flowers are pale yellow, faintly spotted with brown, and very sweet-scented.

3. B. *angusta;* pseudobulbis oblongis ancipitibus, foliis binis oblongis sessilibus subundulatis racemi longitudine, sepalis linearibus acuminatis lateralibus caudatis, petalis linearibus acuminatis, labello lineari-lanceolato acuminato lamellis baseos connatis pubescentibus anticè denticulo auctis.——*Brazil.*——The first knowledge I had of this plant was derived from a specimen sent by Mr. W. Masters of Canterbury, who

had received it from Brazil; at that time I took it for a starved specimen of B. Lawrenceana. Since that time it has flowered in the garden of the Horticultural Society, with the same peculiarity of structure; and hence I conclude it to be a distinct species. It is readily known by its having extremely narrow sepals and lip, which are of a pale dull yellow, with little marking, except a few brown spots at the base of the sepals, petals, and lip. In this respect it varies, for in some cases the spots at the base of the petals are few and distinct, in others they are run together into one brown stain.

4. B. *macrostachya* (Lindl. Sertum. Orch. t. 6.); pseudobulbis compressis margine obtusis 2-3-phyllis, scapo nutante multifloro, sepalis linearibus acuminatis lateralibus longissimis, labello oblongo-lanceolato acuminato petalis longiore: lamellis baseos liberis villosis dentibus tribus liberis in fronte.——*Demerara.*——No species can be compared with this most graceful and brilliant plant, whose long nodding racemes of flowers bend gently over the rich and verdant foliage, while the slender sepals are so long, so light, and so delicate as to be agitated by every impulse given them by the air. They are of a clear golden yellow, slightly spotted with brown, and many degrees darker than the lip.

5. B. *caudata* (Lindl. in Bot. Reg. t. 832. *Epidendrum caudatum,* L. *Malaxis caudata,* W.); pseudobulbis compressis margine acutis, scapo erecto, sepalis ovato-linearibus acuminatis lateralibus longissimis, labello ovato acuminato petalorum longitudine, lamellis baseos liberis villosis denticulis 2 liberis in fronte.——*West Indies.*——Very nearly allied to *Br. macrostachya,* from which it is distinguished by its pseudo-bulbs being acute at the margin, not obtuse, by its flowers being smaller, greener, and much more mottled with deep brown, and by its labellum being ovate, acuminate, and the same length as the petals, not oblong-lanceolate, and longer than them. The little free teeth, too, in front of the calli at the base of the lip, are much smaller.

6. B. *bidens;* pseudobulbis angustis ancipitibus, foliis oblongo-lanceolatis scapo stricto multifloro æqualibus, sepalis acuminatis lateralibus labello duplo longioribus, labello rhombeo undulato petalis breviore: lamellis baseos lævibus rectis appendice membranaceâ bilobâ in fronte.——?——The native country of this species is unknown. I had it from the collection of Mr. R. Harrison in 1837. It is allied most nearly to B. caudata, from which it differs in the form of its lip, and in having two large teeth connected at their base in front of the calli, which are quite smooth. The lip is spotted with brown on a yellow ground. The sepals and petals appear from the dried specimen to be unspotted.

7. B. *cochleata* (Knowles & Westcott, Floral Cabinet, t. 53.); sepalis petalisque subæqualibus linearibus acuminatis, labello elongato cochleato acuminato.——*Demerara.*——Now known only from the above figure. We have seen no specimen. Possibly it is the *B. Henchmanni* of Mr. Loddiges' catalogue, or his *B. cuspidata,* (no. 1467), both of which are unknown to me.

8. B. *verrucosa* (Lindl. in Bot. Reg. 1840. misc. 66. Bateman Orch. Mex. & Guat. t. 22.); foliis scapis gracilibus duplo brevioribus, sepalis lateralibus acuminatis labello unguiculato obovato apiculato verrucoso plus duplo longioribus; lamellis baseos liberis villosis apice recurvis.——

Guatemala.——Flowers on long slender scapes, pale green except the lip, which is white with green warts. The pseudo-bulbs are rounder at the edge, and more furrowed than is usual in this genus.

9. B. *guttata* (Lindl. in Plant. Hartweg. p. 94. *B. Wrayæ*, Bot. Mag. t. 4003.); pseudobulbis oblongis ancipitibus diphyllis, foliis oblongis obtusis racemo multifloro brevioribus, bracteis membranaceis patentibus squmæformibus, sepalis linearibus acuminatis, petalis conformibus brevioribus, labello supra basin cordato ovato crispo, lamellis baseos connatis pubescentibus edentulis apice divergentibus.——*Guatemala.*——A fine species with broad leaves, and large greenish yellow flowers spotted with green; they vary greatly in size; in Mr. Hartweg's wild specimens from the Chono they are very small, in a specimen found by Mr. Skinner at San Salvador twice as large, in the plant figured in the Botanical Magazine larger still, and in a specimen before me from the garden of the Horticultural Society they are considerably larger than even the last. In the gardens the name of Br. Wrayæ is also applied to B. brachiata, a far handsomer species.

10. B. *brachiata* (Lindl. in Plant. Hartweg. p. 94.); pseudobulbis oblongis angustis compressis diphyllis, foliis obtusis racemo multifloro brevioribus, bracteis patentibus squamæformibus, sepalis petalisque brevioribus linearibus acuminatis longissimis, labello supra basin cordato subrhomboideo acuminato crispo, lamellis baseos bidentatis obtusis.——*Guatemala.*——A most noble species, with very large flowers, having brown spots on a pale ground. In a specimen which flowered with Mr. Bateman the lower sepals were fully five inches long. The lip is much waved at the edge, and rather lobed. It is sometimes called *B. Wrayæ.*

11. B. *aristata;* racemo secundo nutante multifloro, sepalis linearibus strictis acuminatis lateralibus labello quadruplò longioribus, petalis ex ovatâ basi acuminatis aristatis, labello obovato basi angustato sub apice aristato secus medium verrucoso: lamellis baseos glabris apice liberis divergentibus rotundatis.——*Guatemala.*——Flowers the smallest in the genus, apparently whole-coloured. Very distinct in the petals, ending in bristle points, and in the presence of a distinct awn beneath the point of the labellum. Only known to me by a dried specimen from Mr. Skinner, without leaves.

12. B. *peruviana* (Pöppig & Endl. gen. & sp. 2. p. 12. t. 117.); foliis elongatis acutissimis, "sepalis anguste linearibus acuminatissimis æqualibus; floribus resupinatis, labello oblongo lanceolato acuto undulato crenulato" sepalis subæquali.——*Peru,* in dry thickets on the eastern face of the Andes, in the district of Chihuamccala, towards Cuchero.——The flowers are represented as growing in one-sided spikes, not exceeding ten in number, about an inch apart, yellowish-green spotted with purple.

13. B. *maculata* (Brown. in Hort. Kew. 5. 215. Bot. Mag. t. 1691.); sepalis petalisque linearibus acuminatis æqualibus, labello postico subrotundo.——*Jamaica.*——Sepals and petals dull olive brown, with purple blotches. Lip cream colour, very large, spotted with purple.

* * *

14. B. *Clowesii* (*Miltonia Clowesii*, Lindl. in Sert. Orchid. t. 34. *Odontoglossum Clowesii,* Lindl. in Bot. Reg. 1839. misc. 153.); pseudobulbis

ovalibus diphyllis, foliis ensiformibus angustis erectis scapo longioribus, racemo paucifloro laxo, bracteis minimis setaceis, sepalis petalisque lanceolatis æqualibus, labelli cordati in medio constricti apice subrotundo acuto basi lamellis 5 inæqualibus abruptis quincuncialibus auctâ.——*Brazil.*——A fine species, with the sepals blotched with chocolate brown upon a yellow ground. Lip white at the tip, violet-coloured at the base. Now that the true limits of the genera allied to Brassia are better understood, this plant it is hoped will rest without further change. It is evidently a transition from Brassia to Miltonia; but upon the whole is better placed in the former than the latter genus, on account of its column having no trace of wings.

14. MAXILLARIA corrugāta.

M. *corrugata;* pseudobulbis ovatis subimbricatis, foliis lanceolatis solitariis breviter petiolatis, racemis paucifloris petiolo multò longioribus, bracteis minimis, sepalis petalisque obtusiusculis, labello oblongo utrinque emarginato (ideoque obsoletè trilobo) venis elevatis flexuosis corrugato, tuberculo mediano obtusè tricarinato.

This plant, belonging to the same division of Maxillaria as M. squalens, was found by Linden between Maracaibo and Bogota, and has just flowered in Mr. Barker's collection. It has pale brownish purple flowers of no beauty; and a lip with numerous purple elevated zigzag veins on a pale yellow ground. The long tubercle in the middle, which in these plants is usually undivided, or merely 3-lobed at the extremity, is here broken up into 3 distinct contiguous elevated ribs.

15. ZYGOPETALUM.

This genus, founded by Sir W. Hooker on the Z. *Mackaii,* is extremely near Eulophia, from which it principally differs in having a deep ridge or bridge lying across the labellum near the base. The union of the sepals and petals, from which the name is derived, is too inconsiderable to merit attention, and is not constant among the species now known. The presence of blue, or some marked shade of that colour, upon the labellum, is another characteristic feature, by which the genus is to be distinguished from Eulophia, in which that tint is, as far as I am aware, unknown.

In consequence of the additions that have been of late years made to the genus, all of which, with one exception, are

in our gardens, it seems desirable to amend the generic character, and to bring together all that is now known concerning them.

ZYGOPETALUM.

(*Hooker. in Bot. Mag. t.* 2748. *Lindl. Orch. no.* 113.)

Perianthium explanatum, sepalis petalisque ascendentibus, subæqualibus, cum ungue producto columnæ connatis. Labellum muticum, planum, indivisum, patens, ungue ascendente : cristâ magnâ transversâ carnosâ. Columna brevis, arcuata, marginata, sæpius utrinque subdilatata, nunc in cucullum expansa. Anthera subbilocularis carnosa, nunc vertice rostrato. Pollinia 2, bipartibilia, in glandulam transversam subsessilia. ——Herbæ terrestres, subacaules, foliis plicatis patentibus. Flores speciosi, suaveolentes, labello cœrulescente.

1. Z. *Mackaii* (Hooker. Bot. Mag. t. 2748. Lod. Bot. Cab. t. 1664. *Eulophia Mackaiana*, Lindl. in Bot. Reg. t. 1433.) ; foliis lorato-lanceolatis striatis apice recurvis racemo brevioribus, sepalis petalisque oblongo-lanceolatis acutis, labello obcordato glaberrimo, callo crassissimo bilobo. ——*Brazil.*——Known from all the genus by its blue-veined perfectly smooth lip, and two-lobed crest. The blotches on the sepals and petals are somewhat smaller than in the other species.

2. Z. *intermedium* (Lodd. Cat. no. 1136. Z. *velutinum*, Hoffmannsegg in Bot. Zeit. 1. 835. ?) ; foliis ensiformibus racemo brevioribus, sepalis petalisque oblongis acutissimis, labello subrotundo undulato basi angustato altè bilobo pubescente, callo crenulato indiviso.——*Brazil.*—— This is generally confounded in collections with Z. *Mackaii*, from which it is readily known by its downy labellum. It is perhaps the finest of the genus.

3. Z. *brachypetalum ;* foliis ensiformi-lanceolatis scapo elato multifloro brevioribus, sepalis petalisque oblongis obtusis, labello transverso subrotundo emarginato basi vix angustato pubescente, callo integerrimo. ——*Brazil.*——Flowers most like those of Z. *intermedium*, but less than half the size. The sepals and petals are short, stiff, convex, and hardly acute, very much more brown than green, in consequence of the blotches running together. The lip is entirely covered with blue veins and spots, firm, hardly at all narrowed to the base, and very little emarginate. I received it from Mr. Waterhouse, of Halifax, in December, 1840.

4. Z. *crinitum* (Lodd. B. Cab. t. 1687. Bot Mag. t. 3402. Z. *pubescens*, Hffsgg. in Bot. Zeit. 1. 835. ?) ; foliis lato-lanceolatis, bracteis cucullatis, sepalis petalisque lineari-lanceolatis acutissimis, labello obovato emarginato basi longè angustato venis villosissimis, callo angusto incurvo emarginato. ——*Brazil.*——There are varieties of this with pink, blue, and almost colourless veins to the lip. They all agree in having those veins quite shaggy, and a lip which, instead of being broader than long, narrows very sensibly towards the base. From the manner in which Count Hoffmannsegg describes his Z. pubescens, "with the tracery of the lip

scarcely at all verging upon blue, and having a broad white margin," I presume he must have had in view some variety, perhaps the pink one, of this.

5. Z. *stenochilum* (Lodd. Bot. Cab. t. 1923.); foliis latioribus racemo æqualibus v. longioribus, sepalis oblongis acuminatis, petalis brevioribus duplò angustioribus, labello angusto oblongo obtuso villoso, callo emarginato.——*Brazil.*——Of this very distinct species the sepals are blotched, and somewhat striped with brown. The lip is white, with blue or violet veins in the middle only. Its small petals and very narrow lip readily indicate it.

6. Z. *maxillare* (Lodd. Bot. Cab. t. 1776. L. no. 2. Bot. Mag. t. 3686.); foliis lineari-lanceolatis undulatis acuminatis racemo flexuoso longioribus, sepalis petalisque ovato-oblongis acutis, labello glabro obovato, cristâ unguliformi maximâ crenatâ.——*Brazil.*——Sepals and petals green, with blotches and broken bands of chocolate brown. Lip violet, with a deep blue bridge. According to Mr. Gardner this species always occurs on Tree-ferns.

7. Z. *Murrayanum* (Hooker in Bot. Mag. t. 3674.); pseudobulbis ovatis profundè sulcatis, racemis foliis brevioribus, sepalis petalisque ovato-lanceolatis, labelli 3-lobi lobis lateralibus ovatis erectis intermedio ovato-lanceolato reflexo glabro, callo integro sulcato.——*Brazil.*——A species of little beauty. The sepals and petals are pale green and unspotted. The lip is white, with some dark claret-coloured spots at the base. It was found on the Organ Mountains, "at the height of about 4000 feet above the sea."

8. Z. *gramineum;* foliis lineari-lanceolatis, scapo subunifloro capillari brevi ascendente, vaginulis laxis unâ in medio duabus sub pedicello, labello subrotundo fimbriato tenui supra basin appendicibus 2 ovato-lanceatis acutis aucto. Flores 3 Z. Murrayani magnitudine, magis membranacei. Scapus 2-pollicaris. Folia spithamæa.——*Popayan;* in woods rare. ——This is much smaller than the other species, and is the only one yet found west of the Andes. It is not in cultivation.

9. Z. *cochleare* (Lindl. in Bot. Reg. t. 1857.); foliis obovato-oblongis pedunculis unifloris multò longioribus, sepalis petalisque ovato-lanceolatis conniventibus inferioribus multò majoribus, labello cochleato subrotundo bilobo velutino, cristâ arcuatâ crenatâ, antherâ ecristatâ.—— *Trinidad.* ——Leaves unusually broad in this genus. Flowers pure white, except the lip, which is of a rich lapis lazuli blue, and very fragrant. Remarkable in this genus for its solitary flowers.

10. Z. *rostratum* (Hooker in Bot. Mag. t. 2819.); foliis lato-lanceolatis patentibus scapo paucifloro longioribus, sepalis petalisque lineari-lanceolatis undulatis acuminatis, labello subrotundo-ovato, callo baseos lunato crenato, columnâ apice cucullatâ dentatâ, antherâ rostratâ.——*Demerara.*——The broad short leaves of this plant readily distinguish it. The sepals and petals are greenish, dashed with purple, but not at all blotched. The lip is white, with a violet crest, and a few pink radiating lines. It has no scent.

16. CLEISOSTŎMA decipĭens.

C. *decipiens;* foliis distichis loratis obliquè emarginatis leviter undulatis, spicis recurvis compositis, sepalis petalisque oblongis rotundatis, labelli laminâ rotundatâ transversâ sacco subventricoso pubescente.

This little epiphyte, which was received from Ceylon by Col. Fielding, is so like Saccolabium micranthum, that it might easily be mistaken for it. The one is, however, a genuine Saccolabium, the other a true Cleisostoma. S. micranthum has pink flowers with a tooth proceeding from the base of the blade of the labellum; C. decipiens has dirty ochre-coloured flowers, with a tooth springing from the back of the spur just below the column. It is an insignificant plant. Our specimen was communicated by Messrs. Loddiges.

17. SPIRANTHES lobāta.

S. *lobata* (Sarcoglottis); foliis oblongis acutis immaculatis, scapo rufescente ovarioque pubescente, sepalis lateralibus deflexis, labello trilobo cucullato lobo medio reniformi lateralibus ascendentibus rotundatis; ungue utrinque villoso: callis elongatis liberis gyratis.

A fine species of that section of the terrestrial genus Spiranthes to which the name of Sarcoglottis has been applied. It is near S. picta, but has yellow flowers, spotless leaves, a brown hairy scape, and a three-lobed lip, the lateral segments of which are erect, in the manner of a Bletia. For a specimen we are indebted to Sir C. Lemon, who received it from Mr. Rule, of the Real del Monte mines.

18. DENDROBIUM Kingiānum.

Bidwill MSS.

D. (Desmotrichum) *Kingianum;* pseudobulbis ovatis in collum longum extensis apice bifoliis, foliis ovalibus emarginatis, pedunculo terminali (2-floro foliis æquali ?), sepalis ovatis mento emarginato, petalis obovatis apiculatis duplò brevioribus, labelli trilobi pubescentis laciniis lateralibus acutis intermediâ paulo longiore transversè rhombeâ angulis lateralibus rotundatis apiculi acuto axi elevatâ trilineatâ apice tridentatâ.

This curious epiphyte was bought by the Messrs. Loddiges at the sale of Mr. Bidwill's New Holland Plants. It has pseudo-bulbs between four and five inches long, tapered from an ovate base into a very long and narrow neck, on the

top of which stand two oblong emarginate dark-green rather wavy leaves. Between these is a flower-stalk having two pink flowers gaily spotted with crimson in the inside. It will probably flower more profusely when in better health, and will then be a plant of considerable interest.

19. HABROTHAMNUS purpurĕus.

H. *purpureus ;* ramis petiolisque tomentosis, foliis ovato-lanceolatis acuminatis subtus pubescentibus supra glabriusculis, cymis terminalibus corymbosis, calyce glabro, corollæ laciniis acutissimis.

We last year (No. 73) mentioned the existence in Europe, in a living state, of the magnificent Habrothamnus fasciculatus, one of the finest of all the gorgeous forms of Mexican vegetation. It is with great satisfaction that we are enabled now to announce another species, also in the possession of Mr. Van Houtte, Nurseryman, Ghent, to whom we are indebted for a fresh specimen. Though not so handsome as the other, it promises to be a very desirable species, and will no doubt soon form a decoration of our English exhibition rooms. The flowers are more purple than scarlet, about $\frac{3}{4}$ of an inch long, and in terminal clusters. Mr. Van Houtte gives us the following information concerning its habits. "This plant is from a district cooler than that which produces H. fasciculatus, and at the utmost does not require more protection than is afforded by a common greenhouse (*orangerie*). In the stove it runs away into a multitude of slender shoots, from which indeed it is easily propagated, and becomes a rambling shrub, with an appearance by no means agreeable. Both the species of this genus should be kept as cool as possible, require to be skilfully pruned, and so arranged as to grow strong and short-jointed. Otherwise the flowers are badly coloured, as always, indeed, happens when the plants are grown in much heat."

20. SPIRANTHES diaphăna.

S. *diaphana ;* foliis hysteranthiis (?), vaginis inflatis acuminatis glabris diaphanis, floribus capitatis extùs tomentosis, labello apice plano oblongo integerrimo.

For a fresh specimen and drawing of this new species of terrestrial Orchidaceæ I am obliged to Mr. Van Houtte of

Ghent. It is a curious plant, flowering without leaves, about 8 inches high, smooth, with 3 or 4 large semi-transparent loose sheaths, streaked with rose-colour. The flowers are enclosed in a head of such sheaths, are downy outside, white, with green streaks outside, and a yellow blotch below the point of the white lip. Probably a native of Mexico.

21. SCHOMBURGKIA undulāta.

S. *undulata*; floribus dense racemosis, bracteis longissimis spathaceis, sepalis petalisque æqualibus undulato-crispis labello longioribus, labelli lobis lateralibus rotundatis intermedio ovali acuto trilamellato lineis minoribus elevatis interjectis.

This is a beautiful species received by Mr. Rucker from Linden, who gathered it in La Guayra. It has fine rich brownish purple sepals and petals, and a clear violet-purple lip. From S. crispa it differs in having the middle lobe of the lip oval acute, and only 3-ribbed, while the side lobes are much smaller and flatter; from S. marginata, with which it corresponds in the form of the lip, it is distinguished by its very long narrow crisp sepals and petals. The flowers are as large as those of S. tibicinis, but the inflorescence is quite different. Unless my memory fails me, there is a representation of this plant among Plumier's figures, which I have not just now an opportunity of consulting.

22. COBURGIA miniāta.

C. *miniata*; foliis virentibus 3-pedalibus scapo compresso æqualibus, perianthii tubo anguste clavato limbo triplo longiore, ovario pedicello subæquali, filamentis basi membranaceis utrinque dilatatis vix in coronulam brevissimam connatis.

The leaves of this plant are full three feet long, and less than an inch broad, bright green, but nevertheless coated by a bloom too thin to render them distinctly glaucous. The scape is of the same height, very slightly glaucous. The flowers, when young, are almost white, with a vermilion tinge on the back, and a little green at their points. When full grown they are two inches and a half long, and the vermilion colour overspreads them almost entirely. The filaments are very slightly dilated at the base into a membrane, and scarcely form a cup. This has the slenderest flowers of any species

that we know of. It flowered in the nursery of Mr. Groom, who received the bulbs from Peru.

23. ERIA cochleata.

E. *cochleata* (Tonsæ); foliis lanceolatis coriaceis 5-costatis, sepalis glabriusculis petalisque lineari-lanceolatis, labello basi costis 5 apice 3 undulatis lineato: lobis lateralibus obtusis intermedio oblongo-spathulato, scapo elongato radicali multifloro ovarioque altè costato cochleari glabris.

A plant from Manilla, with very much the appearance of E. stellata, from which it differs in having smaller flowers, a smooth scape, and a shining ovary with high ribs, which are twisted so as to have the appearance of a very deep-threaded screw. The sepals are very pale green, the petals and lip white, the latter painted with crimson veins and margin. From Messrs. Loddiges.

24. The Section of EPIDENDRUM named AMPHIGLOTTIUM.

Many years ago, in the Transactions of the Horticultural Society, Richard Anthony Salisbury proposed the name of Amphiglottis for the Epidendrum elongatum of Jacquin. More recent writers have, however, preferred to retain that species in the genus where it was first stationed. In the year 1841, in attempting to form natural subdivisions of the great genus Epidendrum, I proposed, in Hooker's Journal of Botany (vol. 3. p. 81.) several sections, among which was one of which the aforesaid Epidendrum elongatum was taken as the type, and to which the name of Amphiglottium was applied: Salisbury's name being a little altered, so as to be of the same gender as Epidendrum, in order to enable those who prefer to regard the plants collected under it as a distinct genus, to do so without at all disturbing the nomenclature.

The characters by which it was proposed to distinguish the section Amphiglottium were the long leafy stem, with distichous leaves, the want of any tendency to form pseudobulbs, a terminal peduncle covered with close sheaths, and a labellum entirely united to the column. Three years additional experience has brought me acquainted with many more species than I then possessed, and, not having induced me to

modify my views, it will now be as well to give an enumeration of what is at present known about this section, more especially as the greater part of the species is to be found in cultivation.

§. AMPHIGLOTTIUM.

AMPHIGLOTTIS, *Salisbury in Hort. Trans.* 1. 261. AMPHIGLOTTIUM, *Lindl. in Hooker. Journ. Bot.* 3. 81. (1841.)

A. *Flowers in spikes or racemes.*

* Lip in no degree lobed.

1. E. *Skinneri* (Bateman in Bot. Reg. fol. 1881.); foliis distichis lanceolatis acuminatis, caule apice longè aphyllo squamoso, racemo cylindraceo multifloro, floribus cernuis, sepalis lineari-lanceolatis, petalis ovalibus acutis, labello ovato acuminato integerrimo basi callo sulcato cristato.——*Guatemala.*——One of the most beautiful of its race. Flowers large, deep rose colour, in long racemes. It is difficult to cultivate. Mr. Skinner says that it inhabits a middling temperature, and will thrive best in a climate graduated from 56° to 70°. He directs us not to put it in earth, but to permit it to have free scope for the young roots and shoots, which it throws out in August.
2. E. *biforatum* (Lindl. in Lodd. cat. ed. 2. no. 566. Bot. Reg. 1842. sub t. 25.); foliis elongato-lanceolatis pedunculo squamato longioribus, racemo paucifloro cernuo, bracteis carinatis rigidis floribus brevioribus, labello subrotundo-ovato per medium elevato basi biforato.——*Brazil.*——The habit of this is something like that of E. fuscatum, but its entire lip, with a central ridge and two pores at the base distinguish it. The only specimen I have examined was out of health, and possibly the flower-stem, which in it was very short, may lengthen out under more favourable circumstances.
3. E. *setiferum* (Lindl. in Ann. Nat. Hist. vol. 4.); foliis distichis lanceolatis acutis, caule simplici squamis lineari-lanceolatis acuminatis sub floribus foliaceis vaginato, racemo cernuo, bracteis longissimis setaceis, petalis linearibus obovatis obtusis sepalis angustioribus, labello cordato integerrimo reticulato acuto basi trituberculato.

——*Brazil.*——With the habit of E. fuscatum and biforatum, but with much shorter leaves, and longe bracts than the latter. The flower-stem is about ten inches long in the Brazilian specimens. (Not in cultivation.)

** Lip more or less lobed, but in no degree fringed.

4. E. *cornutum* (Lindl. in Hooker's Journal, 3. 86.); foliis gramineis lineari-lanceolatis acutissimis, racemo elongato cylindraceo cernuo, sepalis lineari-lanceolatis acuminatis striatis, petalis filiformibus, labelli trilobi laciniis lateralibus nanis rotundatis intermediâ cornutâ basi 3-callosa. ——*Peru, Columbia.*——Spathaceous bracts acuminate, imbricated, as long as the flower-stem. Flowers white, very fragrant. (Not in cultivation.)

5. E. *ovalifolium* (L. no. 39); foliis distichis ovali-lanceolatis acutis, sepalis oblongo-lanceolatis, petalis linearibus, labelli trilobi cordati lobis lateralibus rotundatis : intermedio lineari bilobo disco 3-carinato basi bituberculato, racemo elongato.——*Mexico.*——A Mexican species with green flowers like those of E. nutans, but not panicled, nor proceeding from a spathe, and smelling very like a sliced cucumber. Some of the old stems are three feet long.

6. E. *Clowesii* (Bateman in litt.); foliis lanceolatis racemo longioribus (an semper ?), bracteis minimis mucronatis, sepalis oblongo-linearibus, petalis filiformibus reflexis, labelli trilobi 3-carinati ecallosi lobis subundulatis rotundatis intermedio bilobo.——*Guatemala.*——Nearly allied to E. ovalifolium, from which it differs in having three distinct raised lines on the lip, but no basal calli, and a very short raceme overtopped by the leaves. Flowers yellowish white.

7. E. *fuscatum* (Swartz, L. no. 38. B. R. t. 67. B. M. t. 2844. Bot. Cab. t. 887. *Ep. anceps*, Jacq. Amer. 224. t. 138. *Amphiglottis lurida*, Salisb.—Var. β, floribus minoribus magis viridibus. E. *virescens*, Lodd. Bot. Cab. t. 1867. E. *musciferum*, Lindl. in Hooker's Journal, 1. 6.—Var. γ, floribus multo majoribus, labello violaceo luteo-marginato. E. *viridipurpureum*, Hooker in Bot. Mag. t. 3666.); foliis oblongis undulatis apice recurvis, sepalis oblongis, petalis linearibus, labello car-

noso cordato trilobo laciniis rotundatis intermediâ emarginatâ apice calloso basi 2-tuberculato, spicâ globosâ recurvâ.——*Jamaica, Panama, Martinique, Guayana, Grenada.*——One of the most common of all plants in some of the tropical parts of America, and varying greatly in the size of its flowers and length of the flower-stem. Hence have arisen several species, proposed by myself and others, which a better acquaintance with these plants induces me to believe mere varieties. In colour the flowers vary from dull greenish purple to green and almost yellow. Sir W. Hooker's E. *viridipurpureum* has unusually large flowers, and a flower-stem shorter than common; but in real structure I perceive no difference. There is a little difference among these plants in the degree of lobing observable in the lip; but I find no limit to that kind of variation.

8. E. *orchidiflorum* (L. no. 29.); foliis distichis lineari-oblongis obtusis, caule apice nudo obtusè vaginato, racemo brevi terminali, floribus carnosis, sepalo supremo obovato lateralibus oblongis dimidiatis, petalis linearibus cuneatis, labello subrotundo basi bicalloso apice tridentato: dente intermediâ minore.——*Bahia.*——Leaves very small, fleshy and shining. Flower-stem a foot long, stout, clothed with blunt somewhat rough sheaths. Flowers as large as in the Ep. viridipurpureum of Hooker. (Not in cultivation.)

9. E. *fruticosum* (L. no. 22.); foliis distichis ovato-oblongis acutis, caule ramoso fruticoso, racemo terminali nutante, sepalis cartilagineis petalisque membranaceis ovato-lanceolatis acutis erectis, labello subrotundo cordato retuso apiculato undulato callis 5 magnis confluentibus in disco.——*Mexico.*——Stem branching, without a trace of sheaths, as thick as a crow-quill. Bracts linear-lanceolate, about as long as the ovary. (Not in cultivation.)

10. E. *campestre*; foliis distichis lineari-lanceolatis, pedunculi elongati squamis distantibus appressis, racemo cylindraceo, sepalis lateralibus falcatis labello duplò brevioribus, petalis conformibus angustioribus, labello subrotundo obsoletè 4-lobo margine integerrimo basi lineis duabus elevatis confluentibus alterâ intermedia axin percurrente, clinandrio 4-lobo: laciniis quadratis.——*Brazil*; in dry upland Campos, Serro do Frio, Diamond

District, Gardner 5207.——Nearly related to Epidendrum elongatum. Remarkable for its short falcate lateral sepals and round lip, without any sort of fringing. (Not in cultivation.)

*** Lip distinctly fringed more or less, and usually deeply lobed.

|| *Lip with a concave lobed tubercle occupying the disk.*

11. E. *xanthinum* (E. *ellipticum* β *flavum*, Lindl. in Ann. Nat. Hist. vol. 4.); foliis distichis oblongis carnosis, caule longè aphyllo, sepalis petalisque patentibus lineari-lanceolatis æqualibus, labelli trilobi lobis lateralibus truncatis grossè serratis intermedio cuneato denticulato, callo concavo acuto serrato.——*Brazil.*——This is very like E. ellipticum, of which I formerly considered it a variety. Its yellow flowers are however peculiar; and upon further examination I find the central tubercle of the lip destitute of the shoulders that run off into the side lobes in E. ellipticum. According to Martius its stems are three feet high. Mr. Gardner's (no. 5205), from the province of Mines, are not half that size. (Not in cultivation.)
12. E. *elongatum* (Jacq. B. M. t. 611. L. no. 54. *Amphiglottis secunda*, Salisb. *E. secundum*, Linn. L. no. 57.); foliis distichis oblongo-lanceolatis acutiusculis, caule apice longè aphyllo nunc ramoso squamoso, sepalis petalisque patentibus lineari-lanceolatis æqualibus, labelli trilobi lobis lateralibus truncatis denticulatis: intermedio duplò majore dilatato cuneato emarginato biloboque denticulato basi calloso: callo carnoso concavo acuminato crenato utrinque verrucâ crenatâ aucto.——*West Indies.*——Flowers bright rose colour. Leaves longer and thinner than in E. ellipticum. It can hardly be doubted that the Ep. secundum of Linnæus belongs here; its character having been taken from a crushed and damaged specimen.
13. E. *ellipticum* (Graham in Hook. Exot. Bot. t. 207. L. no. 56. Bot. Cab. t. 1216. *E. crassifolium*, L. no. 55.); foliis distichis ellipticis obtusis concavis succulentis, caule apice longè aphyllo nunc ramoso squamoso, sepalis petalisque patentibus lineari-lanceolatis æqualibus, labelli trilobi lobis lateralibus rotundatis laciniatis: intermedio minore truncato apice denticulato basi calloso, callo concavo plicato acuminato utrinque in lobos laterales decur-

rente.——*Brazil.*——Very near E. elongatum, from which it differs in its elliptical blunt succulent leaves, small middle segment of the labellum, paler flowers, and especially in the form of the tubercle, which is deeply furrowed, or plaited, and shoulders off to the lateral lobes of the lip, and is not furnished there with a free tubercle as in E. elongatum. Flowers light rose colour.

14. E. *ibaguense* (Humb. et Kunth. Nov. Gen. et Sp. 1. 352. L. no. 53.); foliis distichis oblongis obtusis carnosis, caule simplici apice aphyllo nunc ramoso, sepalis sub-oblongis acutis patentibus, petalis conformibus paulò minoribus, labelli trilobi lobo intermedio obcordato cre-nulato-fimbriato lateralibus fimbriatis ovatis dimidiatis apice rotundatis, callo concavo carnoso trilobo apiculato. ——*Peru.*——A very fine species, with orange-coloured flowers. The leaves are an inch and a quarter broad, and the stems as thick as a swan's quill, and apparently often branched. When old they become as smooth as bamboo. (Not in cultivation.)

15. E. *cochlidium* (Lindl. in Ann. Nat. Hist. vol. 4.); foliis distichis ovato-oblongis obtusis emarginatisque coriaceis, sepalis petalisque lineari-lanceolatis patentibus æquali-bus, labelli laciniis laceris subæqualibus callo carnoso maximo excavato trilobo parùm majoribus.——*Peru.* ——Only known from a specimen found by Mathews in Peru. The flowers *seem* to be yellow. The very large tubercle which covers the whole centre of the lip is very remarkable. (Not in cultivation.)

16. E. *dichotomum* (Presl. Rel. Hænk. 101. L. no. 58.); foliis distichis lanceolato-oblongis obtusis, caule apice aphyllo squamoso ramoso, sepalis petalisque lanceolatis acutis reflexis, labelli tripartiti laciniis fimbriatis: late-ralibus rotundatis patentissimis intermediâ majore obcor-datâ, callo concavo crenulato indiviso tuberculis 2 prope basin.——*Peru.*——A very fine species with yellowish ? flowers, which are perhaps the largest of any in this section. Mathews found it in Peru, and it is no. 1024 of his collections. The unlobed tubercle, with a pair of calli near its base, affords a good mark of distinction. (Not in cultivation.)

17. E. *lacerum* (Lindl. in Bot. Reg. 1838. misc. 18.); foliis distichis lineari-oblongis obtusis, caule simplici apice

aphyllo laxè squamato, sepalis petalisque patentibus lineari-lanceolatis æqualibus acutis, labelli trilobi lobis æqualibus laceris pectinatis intermedio apice mucronato integro: lamellis duabus membranaceis sub apice conniventibus duabusque callosis parallelis e basi ortis.—— *Cuba.*——A very slender species with narrow grassy leaves, pale rosy flowers, and a distinct entire point to the middle lobe of the lip. The tubercle is very peculiar, not fleshy as in the allied species, but consisting of a pair of plates converging just below the apex, and another pair of more fleshy calli near the base.

‖ ‖ *Lip with a distinct middle elevated ridge, and two calli at the base.*

18. E. *Blepharistes* (Barker in litt.); sepalis ovalibus, petalis acuminatis, labelli quadrilobi laciniis æqualibus linearibus apice multifidis lineâ mediâ elevatâ callisque duobus semiliberis arcuatis ad basin.——*La Guayra.*——This plant was received by Mr. Barker from Linden. It is closely allied to E. elongatum; but differs in the structure of the labellum, which approaches nearer to that of E. Schomburgkii. The sepals and lip are a rich rose colour; the column has the deepest tint of the garnet, which gives the flowers a very gay appearance.

19. E. *imatophyllum* (L. no. 52.); foliis distichis ligulatis obtusis subemarginatis, caule simplici apice aphyllo vaginato, sepalis lineari-lanceolatis patentibus, petalis duplo latioribus serratis, labelli trilobi carinati basi bicornis lobis lateralibus nanis laciniatis: intermedio cuneato-rotundato subundulato basi serrato.——*Demerara.*——Flowers pale rose colour, larger than in E. ellipticum. Leaves very long, strap-shaped. The column is sometimes green, and the same colour occurs to a small extent in the sepals.

20. E. *radicans* (Pavon. Mss. L. no. 35. E. *rhizophorum*, Bateman in Bot. Reg. 1838. misc. 10.); foliis distichis subcordatis ovatis obtusis, caule simplici apice aphyllo vaginato, sepalis petalisque lanceolatis acutis patentibus, labelli carinati basi bicallosi lobis lateralibus rotundatis denticulatis intermedio cuneato apice fimbriato emarginato utrinque integro.——*Mexico, Guatemala.*——One of the finest of its race; with flowers as much as 1½ inch

across, according to Mr. Skinner. It is in gardens, and has long white roots proceeding from the sides of the stem; but it has not flowered.

21. E. *cinnabarinum* (L. p. 106. Bot. Reg. 1842, t. 25.); foliis distichis oblongis apice sub-recurvis, sepalis petalisque lanceolatis subæqualibus, labello trilobo carinato basi bituberculato: laciniis lateralibus inciso-laceris intermediâ basi obcuneatâ sub apice constrictâ apice cuneatâ truncatâ angulis acuminatis simplicibus fissisque.——*Brazil.* ——In this section of Amphiglottium are three species of great beauty, so nearly related to each other that their limits are with difficulty determined. They all have bright scarlet or crimson flowers, a pair of tubercles at the base of the labellum, and a ridged line running from between the tubercles to nearly the apex of the lip. They however differ thus: *E. radicans* has the lateral lobes of the labellum rounded and toothletted only, not lacerated, and it produces coarse pale green roots from its stems; *E. cinnabarinum* has the lateral lobes of the labellum deeply lacerated, while the central lobe is contracted in the middle, and then *suddenly* wedge-shaped, with its angles prolonged into one or two fine teeth; *E. Schomburgkii* has the lateral lobes only toothed, with the centre lobe gradually widened to the point, and there toothletted, without being at all truncate; the lobes of the lip are confluent in what I take to be a variety of that species.

22. E. *Schomburgkii* (Lindl. in Bot. Reg. 1838, misc. no. 16. t. 53.); foliis distichis oblongis obtusis margine sanguineo-punctatis, caule simplici apice aphyllo, sepalis petalisque lineari-lanceolatis acutis æqualibus patentissimis, columnâ clavatâ elongatâ, labelli trilobi carinati basi bicallosi lobis lateralibus latis rotundatis laceris: intermedio cuneato apice triangulari crispo medio et utrinque acuminato.—— *Demerara.*—— Flowers rich scarlet. Leaves sometimes bordered with crimson. Very handsome. I have a dried specimen of what I suppose to be a variety of this plant, with all the lobes of the lip run together into one, a little toothed at the edge, and more so at the point. It may however be distinct.

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23. E.? *flexuosum*, (Meyer Fl. Essequeb. p. 260. L. no. 34.); foliis distichis carnosis lanceolatis emarginatis, caule

flexuoso, sepalis lanceolatis, petalis rhomboideis, labello acuminato subquadrato margine lacero.——*Essequebo.* ——Stem two or three feet high, compressed, zigzag from sheath to sheath. Leaves six inches long. Flowers purple. A doubtful plant, of which little is known. (Not in cultivation.)

B. *Flowers panicled.*

24. E. *Martianum* (Lindl. in Ann. Nat. Hist. v. 4.); foliis distichis angustis lanceolatis, caule apice ramoso squamis concavis obtusiusculis vaginato, racemis corymbosis, petalis linearibus obovatis obtusis sepalis multo angustioribus, labello cordato subrepando basi bituberculato axi elevatâ. ——*Brazil.*——Allied to E. fuscatum. Stem from 1½ to 2 feet high. Flowering stem stiff, erect, branched, much longer than the leaves, which are narrow and sharp pointed. (Not in cultivation.)

25. E. *laxum*, (Pöppig et Endlich. n. g. et sp. 2. p. 2.); "caulibus basi repentibus, adscendentibus, ancipitibus; foliis lanceolato-oblongis, acutis; panicula terminali elongata, laxa, multiflora; sepalis erectis, subæqualibus, lanceolatis, acutis; labelli columna triplo longioris, ovalis, subcordati, apice breviter trifidi, nudi laciniis integerrimis, intermedia majore, acutiore."——*Peru.*——Stems above a foot high on a long creeping rhizoma. Leaves seldom more than three on each, with a spiny point. Panicle a foot long or more. Flowers small, pale green. (Not in cultivation.)

26. E. *rubrocinctum* (Lindl. in Bot. Reg. 1843, misc. 20. E. *densiflorum*, Hooker in Bot. Mag. t. 3791 ? ?); foliis oblongo-ligulatis acuminatis apice carinatis paniculâ amplâ cernuâ subsessili parum brevioribus, sepalis oblongis concavis acutis coriaceis, petalis angustè linearibus, labello transverso cordato trilobo suprà tricarinato; lobi medii trilobi dente intermedio minuto, columnâ inappendiculatâ.——*Brazil.*——If E. densiflorum is the same as this, which I suspect, then the name of rubrocinctum must be changed, but I am not certain. The sweet-scented flowers are a dull yellowish green, bordered with dull purple; the lip is more yellow than the sepals. It has much the habit of E. nutans, but is a plant of more beauty. Not having seen sufficient specimens, I

formerly regarded it as a species of the section Spathium. It is however an Amphiglottium with a nearly sessile panicle, and only two or three herbaceous sheaths at the base. It connects Spathium and Amphiglottium.

27. E. *pallidiflorum* (Hooker Bot. Mag. t. 2980. L. no. 41.); foliis distichis oblongis linearibus obtusis pedunculo distanter vaginato brevioribus, floribus paniculatis, sepalis petalisque lanceolatis obtusis patentibus, labelli trilobi lobis subæqualibus rotundatis: intermedii trisulci 2-callosi marginibus involutis.—— *St. Vincents.*—— Flowers pale yellowish white, with a purple stain on the end of the column. The specimen figured in the Botanical Magazine was very weak. Its inflorescence is really a loose panicle.

28. E. *gladiatum* (L. no. 47.); foliis paucis distichis gladiiformibus, racemis subsessilibus terminalibus fasciculatis corymbosis recurvis, sepalis oblongis obtusis margine reflexis petalisque spatulatis patulis, labelli trilobi carinati basi bituberculati lobis lateralibus subquadratis rotundatis intermedio multò minore emarginato.——*Mexico.*—— A small species, not more than eight or twelve inches high. The leaves are three or four inches long, and as many lines broad. Mr. Hartweg found it in Mexico, and therefore the habitat of Peru given by me formerly, on authority of Pavon's herbarium, was probably a mistake.

29. E. *anisatum* (La Llave. L. no. 62.); foliis distichis elliptico-lanceolatis, sepalis petalisque patentibus linearibus obtusis, labelli tripartiti laciniis lateralibus obtusis intermediâ profundè bilobâ: lobis acutis.——*Mexico.*—— This is very near E. gladiatum, and is perhaps the same species. The flowers are described as being of a dingy colour, and emitting a smell of Anise at night. The lip is said to have three purple lines at the base. (Not in cultivation.)

30. E. *polyanthum* (L. no. 50. Bateman Orch. Mex. et Guat. t. 34. *E. bisetum*, Lindl. in Bot. Reg. 1841. misc. 148.); foliis distichis ovali-lanceolatis acuminatis, caule ramoso, racemis plurimis multifloris cernuis basi spathaceis, sepalis ovato-lanceolatis acutis striatis, petalis linearibus reflexis, labelli trilobi tricostati lobis lateralibus subcuneatis retusis: intermedio lineari retuso, ovario scabro.——*Mexico, Guayaquil.*——Flowers bright

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30. E. *polyanthum* (L. no. 50. Bateman Orch. Mex. et Guat. t. 34. *E. bisetum*, Lindl. in Bot. Reg. 1841. misc. 148.); foliis distichis ovali-lanceolatis acuminatis, caule ramoso, racemis plurimis multifloris cernuis basi spathaceis, sepalis ovato-lanceolatis acutis striatis, petalis linearibus reflexis, labelli trilobi tricostati lobis lateralibus subcuneatis retusis: intermedio lineari retuso, ovario scabro.——*Mexico, Guayaquil.*——Flowers bright

orange, or salmon-colour, with a strong smell of cowslips. The ovaries are rough with elevated points, the sepals are brownish orange, the lip dull fawn colour. The petals are in the form of two fine bristles.

31. E. *Hænkeanum* (Presl. Rel. Hænk. 100. L. no. 40.); foliis distichis ovato-lanceolatis nervosis acutis, spicâ paniculatâ, sepalis oblongo-lanceolatis acutiusculis in basin attenuatis, petalis spatulatis, labelli trilobi lobis lateralibus rotundatis, medio minore obcordato.——*Peru.* ——Scape a foot high. Sepals ten lines long. Leaves ten lines broad. (Not in cultivation).

32. E. *porphyreum* (Lindl. in Hook. Journal, 3. 86.); foliis distichis oblongis acutissimis, squamis spathaceis dense imbricatis acuminatis pedunculo longioribus, paniculâ simplici multiflorâ, sepalis oblongis acutis lateralibus falcatis, petalis lineari-spathulatis, labelli trilobi laciniis lateralibus rotundatis intermediâ quadratâ bidentatâ: disci axi elevatâ apicem versus bicallosâ basi bicornutâ. ——*Peru.*——A fine species, with an oval panicle and large flowers like those of E. nutans, but purple or dark orange. (Not in cultivation).

33. E. *læve*; foliis distichis lanceolatis apiculatis, paniculâ simplici multiflorâ, sepalis oblongis lævibus, petalis filiformibus, labelli quadrilobi laciniis posticis cuneato-rotundatis anticis linearibus divaricatis, disco callis tribus et lamellis duabus.——*Popayan, Pasto.*——A very fine species in the way of E. paniculatum; but its leaves are lanceolate, the panicle simple, the flowers larger, and the sepals smooth. It is one of Mr. Hartweg's discoveries. (Not in cultivation).

34. E. *paniculatum* (Fl. Peruv. L. no. 61.); foliis distichis oblongis acuminatis, caule apice vaginis acuminatissimis membranaceis vestito, paniculâ confertà compositâ, sepalis oblongis venis extùs varicosis, petalis filiformibus, labelli quadrilobi laciniis posticis brevibus oblongis obtusis: anticis linearibus divaricatis, disco callis tribus et tuberculis duabus.——*Guayaquil, Peru.*——A most noble looking species when dried; its panicle, which is eight or nine inches long and nearly a foot broad, being crowded with flowers. Mr. Hartweg found it in woods on the western declivity of Pichincha. (Not in cultivation).

25. BUDDLEA Lindleyana.

Fortune in litteris.

B. *Lindleyana;* glabra, fruticosa, foliis ovatis acuminatis serratis, racemis verticillatim spicatis tomentosis, calycis dentibus brevibus triangularibus, corollæ tubo elongato infra medium ventricoso laciniis obtusis.

Seeds of this shrub, found by Mr. Fortune in Chusan, have been sent by him to the Horticultural Society, in whose garden they have been raised. He describes it as a handsome small bush, and, from a coloured figure which he has sent home, it appears to merit the description. Its flowers are in close terminal racemes, about two inches long, and are themselves nearly three-quarters of an inch in length. Their colour is a rich violet or lilac. This plant affords a striking illustration of the rapid communication that now exists between England and the East. Its seeds were put into the post in Chusan on the 13th November, 1843, and on the 4th March, 1844, they were actually growing in the garden of the Horticultural Society.

26. STENOMESSON aurantiacum.

Herbert Amaryll. 198.

This pretty bulbous plant has been raised in the garden of the Horticultural Society, where it was sent by Mr. Hartweg, who found it by the road from the Hacienda del Isco, on the ascent to Antisana, at an elevation of 11,000 feet above the sea. It has pretty drooping orange-coloured flowers, and narrow leaves with the edge remarkably rolled back. It will certainly be easy to grow in a greenhouse, if not hardy.

27. CRYPTANDRA suavis.

C. *suavis;* pilosa, foliis obovato-linearibus, floribus in ramulos laterales axillaribus glabris, calycis tubo cylindraceo.

A pretty little greenhouse Swan River bush, raised by Mrs. Wray from seeds. It has small foliage like a broad-leaved heath, and minute white flowers appearing in profusion from the little side branches. It is as fragrant as Hawthorn, and therefore worth cultivation.

28. MILTONIA cuneata.

M. *cuneata;* pseudobulbis ovato-oblongis, foliis oblongis striatis subundulatis, racemo plurifloro, sepalis petalisque lanceolatis undulatis, labello cuneato rotundato basi bilamellato utrinque subrepando, columnâ medio bidentatâ, clinandrio integerrimo.

A beautiful Epiphyte, allied to M. candida, with flowers nearly four inches in diameter; the sepals and petals are a rich brown tipped with green. The lip is pure white, with a tinge of pink near the base. It has lately flowered with Messrs. Rollissons.

29. ANGULOA Clowesii.

A. *Clowesii;* pedunculo unifloro radicali laxè squamato, flore carnoso resupinato, sepalis petalisque ovatis convexis conniventibus, labelli trilobi lobo medio piloso infundibulari bilabiato: labio altero emarginato altero tridentato, columnâ integrâ.

At last a genuine species of the genus Anguloa, which has hitherto puzzled every one, has made its appearance in the collection of the Rev. J. Clowes, of Broughton Hall near Manchester, who obtained it from Linden's Columbian collections. It is indeed a noble plant. The flowers are four inches in diameter, of a clear lemon colour, with a pure white lip. We refrain from doing more than announcing it, because it will soon be published with a plate in an early number of this work.

30. GONGORA maculata, *var.* tricolor.

This also is from Mr. Clowes's collection, where it was received from Liverpool, with a statement that it came from Peru. It is a most beautiful variety of G. maculata. The ground colour of every part of the flower, except the lip, is clear yellow; the column and petals are delicately banded with rich sienna brown, and a few large clear distinct blotches of the same colour occur on the sepals. The lip itself is white, with a cinnamon stain on the ends of the lateral tubercles and the sides of its upper half.

31. ASTYRIA rosea.

This is a fine stove plant from the Mauritius, with the habit of a Dombeya, and with nearly the same structure, but essentially distinguished by the want of sterile stamens. The only species known to us has large soft cordate crenated leaves, and dense panicles of large pinkish flowers seated on a woolly footstalk, much shorter than that of the leaf. It has blossomed with his Grace the Duke of Northumberland, and will shortly be figured in this work; till which time a full account of the plant is deferred.

32. HYPOCALYMMA suavis.

H. *suavis;* foliis oppositis filiformibus plano-convexis glandulosis mucronatis, floribus geminis axillaribus sessilibus, staminibus corollâ longioribus.

This plant is very near H. angustifolium, and may be a mere variety. It seems, however, to differ in having longer leaves and stamens, in addition to which the flowers are white not pink. It is a graceful greenhouse shrub, very sweet-scented, and altogether a very nice plant. It was raised in the garden of the Horticultural Society from Swan River seeds.

33. ANDROMEDA phillyreæfolia.

Hooker. Ic. Plant. 2. t. 122.

For the introduction of this beautiful greenhouse shrub we are indebted to Messrs. Loddiges, with whom it flowered in January last. It is a narrow-leaved evergreen, with convex leaves serrated near the point, and short horizontal racemes of white flowers. In habit it is not very unlike a large broad-leaved form of Andromeda polifolia.

34. DENDROCHILUM ? abbreviatum. ?

Blume Bijdragen, 398. Lindl. Gen. & Sp. 35.

D. *abbreviatum;* pseudobulbis ovatis diphyllis, foliis oblongis basi angustatis racemo æqualibus, ovario hexaptero bracteæ striatæ oblongæ acutæ citò deciduæ longitudine, labello saccato cordato apice dilatato retuso den-

ticulo interjecto internè bicalloso, columnæ truncatæ denticulatæ angulis anticis dentiformibus.

Messrs. Loddiges having imported this little Orchidaceous plant from Java, it is to be presumed that it must be one of those enumerated by Dr. Blume; and as none of his definitions suit it well, except that of D. abbreviatum, we must conclude that this must be what he intended by that name. Nevertheless, it is difficult to reconcile his statement that the lip of that plant has a reflexed tooth on each side at the base, unless we suppose that he intended to describe the heart-shaped base of the lip. The plant has little beauty. The flowers are small, green, with a white lip, having a yellow stain in its middle. The column is a deep cinnamon brown, truncated and notched, with the front angles a little lengthened into teeth. The lateral lobes of the column, found in other species, are deficient in this. The pollen is white, separates into 4 soft masses, having as many thread-like tails by which they adhere to the point of the stigma, which will even come off with them, like the gland of Vandeæ. This structure requires to be investigated with more care than we have yet been able to give it.

35. NARCISSUS montanus.

In our last vol. at p. 3, 4, 5, of art. 33, it was stated that the native place of this plant was unknown, and that it might perhaps be made by crossing N. dubius with pollen of the whitest musk daffodil, N. candidissimus of Redouté. Cultivated above 200 years ago by Parkinson, who received it as a mountain plant from a collector whose honesty he praises, it was understood to have been brought from the Pyrenées; but, as it did not appear to have been found since, and seems to be sterile by its own pollen, I suspected it of fraudulent hybrid origin. Thinking, however, that the yellow and red cup of N. poeticus could not be sufficiently discharged by a cross with the musk daffodil, I fancied that N. dubius must be the female parent. It appears however that I had underrated the power, always predominant, of the male type, and that I had already made the plant, having obtained a single seedling from N. poeticus v. stellaris, by the whitest Ajax moschatus. It has now flowered, and does not differ more from N. montanus (Tros poculiformis of Haworth) than might occur amongst

seedlings from one capsule, certainly not more than might be expected considering the varieties of the two parents, especially of N. poeticus which differ greatly from each, and the improbability of the two having proceeded from precisely the same varieties. The Spofforth mule has the tube green, above five-eighths of an inch, at first perpendicularly curved, afterwards rising half the right-angle, cup three-eighths long, five to six eighths wide, so indented as to look fringed, at first faintly tinged with yellow, turning the next day pure white, limb stellate acute, an inch long, white, anthers all out of the tube, equalling the style, shorter than the cup; leaves glaucous, one-quarter wide, about nine inches high or more. N. montanus poculiformis has the limb less stellate, it and the cup about an eighth of an inch longer, the white not so clear, the tube scarcely five-eighths, and is subject to great disturbances and deficiencies. I have two flowers of it now before me, of which one has only three segments and three anthers and the cup split, the other has seven segments, three anthers, and the cup split in two places. The Spofforth mule has the flower very perfect and neat. Haworth's galanthifolius is a third variety a little smaller. It has taken two centuries to unmask the many frauds of Parkinson's supposed collector. The leaf of N. montanus in the figure quoted is twice as broad as it should be. In the same manner the figure of N. trilobatus Bot. Mag. is probably Ganymedes concolor of Sweet, exaggerated in size and colour, for no such plant is either forthcoming or remembered by any nurseryman or cultivator that I have known. Whenever the cross between dubius and candidissimus shall be obtained, it will probably have the cup pure white, and will be perhaps two-flowered. By crossing the paper white, or the unicolor of Tenore with N. poeticus a white-cupped N. biflorus would be obtained. W. H.

36. ASPARAGUS lucĭdus.

A. *lucidus;* ramis longissimis aculeis rectis scandentibus, foliis solitariis linearibus falcatis lucidis, pedunculis unifloris.

This is a scrambling plant of the most vivid green, forming an entangled mass many feet in length, when cultivated in the stove, but in its natural state not even a foot high. It is a native of Macao, whence it was received by his Grace the Duke of Northumberland, with whom it has produced its

little green flowers at Syon. It is nearly allied to A. falcatus, from which it differs in its smaller solitary leaves, and in the flowers not growing in racemes.

37. CROCUS medĭus.

Balbis.

C. *medius;* cormi tunicis tenuiter cribrosè reticulatis, vaginaceâ interiore prope basim, foliaceis brevibus summo cormo affixis, foliis 2-3, flore autumnali, scapo involucrato, spathâ longè exsertâ ebracteatâ, tubo spatham superante, limbo purpureo.—*W. H.*

Bulbs of this have been received by the Dean of Manchester from meadows about Varése, on the mountains of Liguria. These having flowered at Spofforth, Mr. Herbert has favoured us with the true character of the plant.

38. ONCIDIUM lacĕrum.

O. (TERETIFOLIA) *lacerum;* foliis longis teretibus carinatis, paniculâ contractâ multiflorâ, sepalis petalisque conformibus obovatis concavis, labelli elongati laciniis lateralibus linearibus refractis intermediâ longè et angustè unguiculatâ bilobâ margine lacerâ, cristæ dente altero transverso altero majore compresso a fronte, columnæ brevis pubescentis alis semiovatis.

Panama has furnished this very pretty species to Messrs. Loddiges, who flowered it in April 1844. It has very much the habit of O. longifolium, but has rather denser flowers, with a lacerated and rather crisp middle lobe to the lip, and a crest consisting of one transverse tubercle, like that of O. nudum, and another larger, compressed, rounded, and at right angles to it in front.

39. TULĬPA humĭlis.

T. *humilis;* foliis tribus (rariùs quatuor) humum prope divaricantibus cymbiformibus ferè linearibus subobtusis rectis glaucis margine purpureo, scapo sesquiunciali lævi purpurascente, perianthio subsesquiunciali laciniis acutis, petalis latioribus pallidissimè purpurascentibus inferne lætè luteis extus viridi striatis, sepalis intus veluti petala extus virescentibus margine purpurascente basi livido-virente, filamentis luteis inferne complanatis prope basim uti petalorum margines albo pubescentibus antheras longitudine superantibus, germen petalinis ferè sepalinis æquantibus.—*W. H.*

This beautiful little Tulip is undescribed as far as I know. It agrees with nothing in the books within my reach. It is

not tricolor, of which I have no description, because I have two little bulbs of it, and its leaves are bright green; but it may have been named in the Petersburg Acts. I received it from Mr. Kotschy, who collected it on Mount Elburz. It flowered at Spofforth in April, 1844.—*W. H.*

40. The Species of CATASETUM.

This genus was founded by Louis Claude Richard upon two plants from tropical America, one of which he called C. *macrocarpon*, the other C. *maculatum*. Among the peculiarities of the genus were two long feelers or cirrhi directed downwards from the column into the cavity of the lip, and a large fleshy helmet-shaped lip.

As soon as the attraction of European gardeners began to be turned to the cultivation of tropical Orchidaceæ, other species of the genus were made known, and now it has become a very considerable group, the greater part of which is scattered through various writings. In the course of gathering together these materials certain plants were obtained, which appeared to form distinct genera; one was called *Myanthus*, the other *Monachanthus*. *Myanthus* was thought to be distinguished by having a flat lip, and *Monachanthus* by want of feelers on the column. But, strange to say, both these flowers were afterwards ascertained to be monsters of genuine Cataseta, as was fully explained at tab. 1951 of the Botanical Register.

The following are, we believe, all the Cataseta now on record, divided into two sets, one of which has a plane lip, and answers to *Myanthus*; the other a helmetted lip, answering to the original *Catasetum*.

§ 1. *Labellum galeatum*; Catasetum.

1. C. *tridentatum* (Hooker Exot. Fl. t. 90. 91. L. no. 2. C. *macrocarpon* H. B. K. 7. 158. t. 631. C. *Claveringii* Lodd. Bot. Cab. t. 1344.——var. *floribus majoribus sepalis petalisque acutis*. C. *Claveringii* Lindl. Bot. Reg. t. 840. C. *floribundum* Hooker Exot. Fl. t. 151.—— var. *floribus viridibus concoloribus*. C. *Wailesii*, Hooker in Bot. Mag. t. 3937.); foliis oblongo-lanceolatis acuminatis, perianthiis compressis conniventibus, sepalis petalisque acuminatis, labello galeato aperto apice tridentato

margine lævi.——*All parts of tropical South America, east of the Andes.*——There is no doubt that C. macrocarpon is this plant, whose name should therefore, according to the strict laws of priority, be changed. But the name macrocarpon is unmeaning, and much inconvenience would arise from the restitution of it. It is a very common variable plant, sometimes even losing its spots, as in C. *Wailesii* from Honduras.——Monstrous Forms. *Monachanthus viridis,* Lindl. no. 1. Bot. Reg. t. 1752, from *Brazil* is a monster with no cirrhi to the column, and the lip perfectly undivided. C. *cristatum* L. no. 7. is another monster, as is proved, at plate 1951 of the Botanical Register.

2. C. *maculatum* (H. B. K. 7. 157. t. 630.); "foliolis calycinis duobus interioribus maculatis, labello ciliato."——*Turbaco in New Grenada.*——All that can be said about this species is that it certainly is not the C. maculatum of our gardens. At the time I referred the latter to it I was not aware that it had been figured. Nothing like it in a cultivated state has yet been seen.

3. C. *integerrimum* (Hooker Bot. Mag. t. 3823. C. *maculatum* Lindl. Bot. Reg. 1841. t. 62. Bateman Orch. Mex. et Guat. t. 11. nec H. B. K.); sepalis petalisque conniventibus, labello carnoso galeato basi inflexo lateribus suis invicem imbricantibus margine lævi vel serrato. ——*Guatemala.*——This is very nearly the same as C. *tridentatum,* from which it differs in its helmet-shaped lip, having the lower edges brought together so as to press upon the column, instead of being wide apart, and being generally serrated, although sometimes smooth. It is certainly not the species so named by Humboldt, which was found near Turbaco in New Grenada. That plant is represented with the labellum quite open, not contracted and curved inwards near the column, and surrounded by a broad plaited border, called in the description "ciliatum."

4. C. *planiceps* (Lindl. in Bot. Reg. 1843. t. 9.); sepalis petalisque ovatis conniventibus, labello carnoso galeato rotundato compresso apiculato indiviso margine serrato. ——*Spanish Main.*——Flowers green and yellow. The habit is that of C. *integerrimum, tridentatum,* and *semiapertum,* from the second of which it differs from its ser-

rated lip, from the first and the last in its lip not having the edges incurved, and from all in the singular truncate form of this helmet-shaped organ, which is flattened from front to back and not laterally.

5. C. *fuliginosum* (Lindl. in Bot. Reg. 1841. misc. no. 168); C. tridentati vultu, sepalis petalisque oblongis acutis reflexis, labello cucullato carnoso integerrimo v. minutè serrulato patente, columnâ brevi ecirrhosâ apice in setam productâ, antherâ parvâ (effœta ?).—— ? ——This singular plant has the habit of C. tridentatum, but its flowers are in a dense erect raceme, and of a deep green colour, spotted with a dull blackish purple, so as to look as if they were soiled with soot. The sepals and petals are spotted, oblong, acute, and reflexed, so as to hang downwards. The lip, on the other hand, is fleshy, hooded, stained with pale purple, and either entire at the margin, or very slightly serrated; but it does not cover over the column as is usual in the hooded Catasetums: on the contrary it spreads away at almost right angles. The column itself is short, deep green, and produced at the point into a straight bristle, in front of which is placed a small and imperfect anther. Judging from the evidence we possess concerning C. tridentatum and cristatum, we should suspect it to be a male form of C. atratum, or some such species. That, however, must remain for future inquiry.

6. C. *luridum* (Lindl. Gen. & Sp. Orch. p. 156. Bot. Reg. t. 1667. *C. abruptum*, Hooker in Bot. Mag. t. 3939. *Anguloa lurida*, Link in Verhandl. des Vereins. z. bef. des Gartenb. in dem Königl. Preuss. Staat. 1. p. 289. t. 6.); caulibus defoliatis angustis sulcatis, perianthio subgloboso parum maculato, sepalis petalisque oblongis apice rotundatis, labello cucullato carnoso mutico apice paulò producto truncato, racemo brevi nutante.—— *Brazil.*——Flowers green, globose, with a blunt shovel-shaped lip, having some brown spots on a yellowish ground.

7. C. *semiapertum* (Hooker. Exot. Fl. t. 213. Bot. Reg. t. 1708.); foliis oblongo-lanceolatis multiplicatis racemo compacto longioribus, perianthiis subpatentibus, labello galeato apice incurvo: lateribus denticulatis.——*Brazil.* ——Flowers small, green, whole coloured.

8. C. *purum* (Nees ab Esenb. Plantarum in h. med. Bonnens. Icon. p. 1. t. 1. L. no. 5.); foliis lineari-lanceolatis, perianthio patente obsoletè punctato, labello ventricoso apice incurvo concolore ciliato integerrimo.——*Brazil.* ——Much like the two last, from which its very narrow leaves seem to distinguish it. Flowers green, and scarcely spotted, about as large as those of C. Hookeri.
9. C. *Hookeri* (Lindl. Coll. Bot. t. 40. Gen. & Sp. no. 3.); foliis lanceolatis triplicatis, perianthiis globosis, labello apice incurvo: lateribus denticulatis.——*Brazil.*—— Flowers small, yellowish brown. Petals green. Lip green, yellow at the point, spotted with purple inside.
10. C. *globiflorum* (Hooker in Bot. Mag. t. 3942.) spicâ elongatâ multiflorâ, perianthio globoso, sepalis petalisque subconformibus ovatis acutis concavis arctissimè imbricatis, labello hemisphærico-globoso, ore contracto oblongo inferne dilatato basi columnæ longitudine denticulato, columnæ brevis setis rectiusculis.——*Brazil.*——Much like C. Hookeri, and perhaps a variety of it. The sepals and petals are olive-brown, and closely applied to a glaucous globular labellum, the greater part of which is uncovered.
11. C. *longifolium* (Lindl. in Bot. Reg. 1839. misc. 154. Sertum Orchid. t. 31.); foliis longissimis gramineis, racemo cylindraceo pendulo multifloro, sepalis ovatis subrotundis petalorum conformium dorso applicitis, labello urceolari a tergo incurvo limbo truncato apiculato intus cereaceo glabro margine fimbriato.——*Demerara.* ——Leaves very long and narrow. Flowers bright orange, a little bordered with violet, in a drooping raceme, over which they are closely packed for the length of a foot or more; they are extremely beautiful, and the species is beyond comparison the handsomest of its genus.
12. C. *discolor* (*Monachanthus discolor* Lindl. in Bot. Reg. t. 1735. *M. Bushnani* Hooker, Bot. Mag. t. 3832. *M. roseo-albus* Hooker, l. c. t. 3786.); racemo laxo multifloro, labello hemispherico marginibus planis medio fimbriatis.——*Brazil.*——Leaves rather narrow. Flowers in a loose erect raceme, dull pale purple, with the inside of the lip yellow. They vary in colour to yellowish green, or French-white; and sometimes the lip, which

is usually whole coloured, is tipped and banded with red. In M. roseo-albus the fringes of the lip are unusually long.

13. C. *atratum* (Lindl. in Bot. Reg. 1838. misc. 114. t. 63.); racemo decurvo, sepalis petalisque patentibus ovatis acutis, labello carnoso cucullato margine tenui pectinato apice rotundato reflexo crasso denticulato.——*Brazil.* ——Flowers deep green outside; sepals rich purple inside; petals spotted with the same colour; lip dull green, fringed, with a yellow recurved flap at the end.

14. C. *Russellianum* (Hooker in Bot. Mag. t. 3777.); pseudobulbo elliptico magno, foliis lato-lanceolatis, racemo amplo, labello membranaceo anticè inflato ore contracto margine anteriore producto undulato fimbriato disco membranâ cristato, columnâ nudâ (ecirrhosâ).——*Guatemala.*——A large species with green flowers, a little relieved by the greater whiteness of the labellum, which is almost membranous. It is very near C. *laminatum*. The absence of cirrhi from the column, if constant, is remarkable.

§ 2. *Labellum planum, sæpius foveatum v. saccatum;* Myanthus.

15. C. *laminatum* (Lindl. in Ann. nat. hist. vol. 4. p. 384. Bentham, Plantæ Hartwegianæ, p. 72. Sertum Orchidaceum, t. 38.—*Var.* 1. *maculatum;* labello, columnâ petalisque purpureo-fusco maculatis, *Sert. Orch. t.* 38.—*Var.* 2. *eburneum;* labello eburneo columnâ petalisque immaculatis, *Bot. Reg.* 1841. *t.* 5. *f.* 4.); labello lanceolato basi saccato apice marginibusque incurvo basin versus fimbriato per axin lamellâ unicâ carnosâ altâ integrâ v. denticulatâ basi bilobâ instructo, columnâ cirrhatâ.——*Mexico.*——Flowers spread open, large, purple, or greenish spotted with that colour. Lip sometimes pure white, sometimes speckled with purple, with a deep plate running along its middle from end to end.

16. C. *tabulare;* vegetatione sepalis petalisque omninò C. laminati, labello oblongo antico concavo basi cornuto fimbriato extùs sub apice lineis serrulatis elevatis striato secus medium cristâ tabulari latâ transversè corrugatâ anticè dentatâ aucto.——*Grenada.*——This is very like the Guatemala C. laminatum; but the structure of the

lip is different. In place of the thin knife-like crest of that species, there is a broad raised oblong fleshy table of a yellowish brown colour, closely wrinkled across and broken up into asperities, which, at the front of the table where it forms a kind of cliff above the lip, are extended into strong teeth. On the outside of the lip near the point the veins are raised and somewhat toothed. The colour and size of the flowers are much the same as in C. laminatum.

17. C. *saccatum* (Lindley in Botanical Register, 1840. misc. 179. Sertum Orch. t. 41.); sepalis lanceolatis patentibus dorsali petalisque fornicatis, labello subrotundo abruptè acuminato fimbriato medio saccato: ostio contracto reniformi posticè dentato, columnâ cirrhatâ.——*Demerara.*——This has very large flowers, with rich purple-spotted sepals and petals, and a bright yellow lip covered closely with crimson dots. The latter is pierced in the middle by a narrow aperture, that leads into a conical chamber or bag, which is not observed till the back of the lip is turned up.

18. C. *Naso* (Lindl. in Bot. Reg. 1843. misc. 111.); spicâ brevi erectâ, sepalis oblongo-lanceolatis complicatis petalisque lanceolatis ascendentibus æqualibus, labello hemisphærico apice abruptè in appendicem carnosum ovatum obtusum producto: marginibus basi tenuibus laceris amplexicolumnibus: lineâ intramarginali carnosâ inflexâ connivente ostium cordiforme efficiente.——*Caraccas.*——This is a singular plant whose flowers before opening might be mistaken for C. tridentatum, but when expanded they are totally different. The sepals and petals, which are very pale dull green outside, are slightly pink inside, and richly spotted, in irregular bars, with a deep crimson-purple. The lip is a most singular organ, and very difficult to describe. Viewed from the side it has a hemispherical form, and is green except at the base, where it is extended into a black-purple lacerated margin embracing the column, and at the point where it is extended into a long flat horn or *nose*. Seen in front it is almost wholly of the same rich black-purple, and looks as if it were a solid hemisphere pierced in the middle with a large heart-shaped hole; but this appearance is owing to a thick fleshy rim which rises from within the true

edge of the lip, and directing itself inwards horizontally with an uneven outline, at last touches in front of the column and presents the appearance of a junction.

19. C. *Trulla* (Lindl. in Bot. Reg. 1840. misc. 176. 1841. t. 34.); sepalis petalisque patentibus ovalibus planis, labello latè ovato acuminato obtuso subcordato concavo fimbriato apice lævi, columnâ brevi.——*Tropical America.*——Flowers green, unspotted; lip of the same colour, but whitish near the base, with a deep brown spot in the middle.

20. C. *callosum* (Lindl. in Bot. Reg. 1840. misc. 183. 1841. t. 5. f. 1.); petalis concoloribus lineari-lanceolatis sepalo dorsali conformi suppositis, labello ovato-oblongo obtuso basin versus saccato supra saccum callo magno (aurantiaco) instructo margine obsoletè crenato, columnæ acuminatæ cirrhis vix ultra callum extensis.——*La Guayra.*——Exactly like Catasetum tridentatum, *var.* floribundum in habit, but its flowers are different. The sepals and petals are of a dull reddish brown, without spots; the column is of the same colour, which may perhaps be best compared to that of old spoilt port wine. The lip is green, flat, with a yellow tubercle near the base above the hollow, and a stain of the same colour near the apex.

21. C. *poriferum* (Lindl. in Bot. Reg. 1838. misc. 164.); labello plano cordato-ovato truncato crenato, lobo apicis elevato carnoso ovato medio nectarifero, dente baseos ovato incurvo, columnâ cirrhosâ.——*Demerara.*——Similar in appearance to C. deltoideum, like which its flowers are richly spotted with deep purple broken fasciæ, closely arranged upon a clear green ground. The lip is dull green, nearly flat, deeply cordate, truncate at the apex, with an obscurely crenated margin. At its base is an elevated yellow-tipped broad tooth, and at its apex an ovate yellow fleshy raised lobe, with a pore in the middle secreting honey.

22. C. *deltoideum* (Lindl. Bot. Reg. 184 . misc. 157. *Myanthus deltoideus* Bot. Reg. t. 1896.); labello imberbi sagittato triangulari, angulis posticis rotundatis dentatis apice dilatato calloso margine recurvo basi tuberculato.——*Demerara.*——Flowers deep green, spotted with purple. Lip purple, flat, fleshy, with a dash of green in the

centre.——MONSTROUS STATE. This has been observed to sport in the same way as C. tridentatum. A case is mentioned in the Botanical Register for 1840, misc. 157. where the scape became three times as stout as usual, the length of the raceme much reduced, the sepals and petals retaining their form and colour ; but the labellum, instead of being arrow-headed, flat, deep purple, toothed at the base, and placed in front of the flower, was of exactly the same form as that of *Monachanthus viridis*, hooded, undivided, and of a dull greenish colour tinged with dull purple. The column too, in like manner lost its cirrhi, shortened, and its lengthened beak disappeared.

23. C. *trifidum* (Hooker in Bot. Mag. t. 3262. *Myanthus cernuus*, Lindl. p. 155. Bot. Reg. t. 1721.) ; racemis elongatis cernuis multifloris, sepalis petalisque lanceolatis convergentibus, labello transverso plano altè trifido laciniâ intermediâ minore.——*Brazil*, *Trinidad*.——Flowers green, with a few purple spots.

24. C. *cornutum* (Lindl. Bot. Reg. 1840, misc. 182. 1841. t. 5. f. 2,) ; petalis maculatis lineari-lanceolatis sepalo dorsali conformi suppositis, labello subcordato-ovato basin versus saccato sub sacco cornu valido inflexo instructo processibus teretibus rigidis fimbriato basi dentato, columnæ acuminatæ cirrhis cornu labelli attingentibus. ——*Demerara*.——Flowers dull green, richly spotted with deep blackish purple.

25. C. *lanciferum* (Lindl. in Bot. Reg. 1841. t. 5. f. 5.) ; petalis maculatis lineari-lanceolatis sepalo dorsali conformi suppositis, labello subcordato-ovato fimbriato basin versus saccato sub sacco cornu tripartito instructo, sub apice laminâ lineari-lanceolatâ aucto, columnæ cirrhis vix columnâ longioribus.——*Brazil*.——Very like C. cristatum ; but the margin only of the lip is broken up into fringes ; and at the point is a broad lancet-shaped spine.

26. C. *barbatum* (*Myanthus barbatus*, Lindl. Bot. Reg. t. 1778 *C. spinosum*, Lindl. Bot. Reg. 1841. misc. 136. *Myanthus spinosus*, Hooker Bot. Mag. t. 3802. *C. proboscideum*, Lindl. in Bot. Reg. 1839. misc. 140. 1841. t. 5. f. 3.) ; petalis versus apicem serratis, labelli infra medium saccati margine pilis tenuibus succulentis albis longè fimbriato apice angustè attenuato recurvo supra ad

basin spinâ tripartitâ infra apicem spinâ magnâ dentatâ porrectâ, cristæ pilis opacis subulatis apice sæpe bifidis per paria tria quatuorve basi connatis. —— *Brazil, Demerara.*——Sepals and petals narrow, green, blotched with purple. Lip green or pink, with narrow delicate fibres arising from its margin. No doubt the supposed species quoted above are mere varieties of the same natural form.

27. C. *cristatum* (Lindl. in Bot. Reg. t. 966.); foliis oblongo-lanceolatis perianthiis explanatis, sepalo supremo petalisque conniventibus, labello fimbriato cristatoque expanso cristæ pilis crassis lucidis compressis obtusissimis emarginatisque simplicibus.——*Brazil.*——Both this and the last have a strong smell of Tarragon; they are probably varieties of each other.——MONSTROUS STATE.—Has been found to sport into *C. tridentatum*; see Botanical Reg. t. 1951.

41. LYCASTE crinita.

L. *crinita;* sepalis petalisque intus crinitis, labello intus villoso altè trilobo laciniis angustis obtusis intermediâ ovali, appendice lineari adnato; facie L. cruentæ.

This plant is much like L. cruenta, and has flowers of nearly the same colour; but it differs in being smaller, with the interior clothed with very long silky hairs, and in the very different form of the lobes of the lip; which is moreover destitute of the crimson stain that gives its name to L. cruenta. The appendage of the lip is moreover long and elevated, not very short and inconspicuous. We have received a specimen from Messrs. Loddiges.

42. VANDA furva.

V. *furva* (Lindl. Gen. & Sp. Orch. p. 215. *V. Roxburghii unicolor*, Hooker in Bot. Mag. t. 3416. *Angræcum furvum*, Rumph. Amb. 6. t. 46. f. 1. *Epidendrum furvum*, Linn. sp. pl. 1348. *Cymbidium furvum*, Willd. Sp. Pl. 4. 103.); caule alto, foliis laxis membranaceis apice obliquè tridentatis, racemis lateralibus plurifloris, floribus distantibus, sepalis petalisque oblongo-obovatis undulatis unicoloribus obtusis, labelli trilobi lobis lateralibus obtusis intermedio cuneato bilobo.

I am indebted to Mr. Loddiges for suggesting that this is in all probability the Vanda furva about which there has been so much uncertainty. It certainly corresponds very closely

with Rumphius's figure; but it comes from China, and not from Amboyna. It has the habit of V. Roxburghii, to which Sir W. Hooker has referred it; but it differs not only in the whole colour of its sepals and petals, and the other characters above indicated, but also in being a large lax growing plant, five or six feet high, with much thinner and longer leaves. The former is a short growing plant, with the leaves very closely set together. The middle lobe of the lip of V. Roxburghii is oblong and contracted at the point; here it is wedge-shaped and two-lobed.

43. HINDSIA violăcea.

Bentham MSS.

H. *violacea*; incano-tomentosa, foliis ovalibus acutis sulcatis subtùs rugosis longè petiolatis, pedunculis brevibus 2-floris, bracteis calycisque laciniis exterioribus hirsutis spathulatis acutis, corollæ 4-5-lobæ tubo longissimo laciniis ovalibus acutis carnosis fauce nudâ, stigmatibus filiformibus exsertis.

A most beautiful plant imported by Messrs. Veitch and Sons from South Brazil, and exhibited by them at the late meeting in the Garden of the Horticultural Society, on which occasion it received the large silver medal. We presume it to be a hardy stove or tender greenhouse shrub. Its habit is not unlike that of H. longiflora, but it is infinitely handsomer. The flowers are of the most intense violet or ultramarine, two inches and a half long, and in clusters near the ends of the branches. It was only excelled at the late exhibition by the Cereus crenatus; and will doubtless prove a most useful as well as beautiful addition to our hothouses.

We long ago pointed out the probability that the plant called Rondeletia longiflora by Chamisso and Schlechtendahl would prove to be really a different genus; and we are glad to find our suspicions confirmed by Mr. Bentham, who proposes to name this species and the R. longiflora after R. B. Hinds, Esq. the zealous and indefatigable naturalist, whose plants, collected for his private use, are now in course of publication at the public expense.

Hindsia will be found to differ from Rondeletia in its funnel-shaped, not strictly hypocrateriform, corolla, which is moreover destitute of that faucial coronet which in R. odorata is so conspicuous.

44. HEXADESMIA bicornis.

H. *bicornis;* caulibus fusiformibus elongatis, foliis linearibus obliquè bidentatis, floribus subsolitariis cernuis, labello ovato retuso subserrato, columnâ utrinque bicorni.

An addition to the insignificant genus Hexadesmia, sent to Mr. Loddiges from Columbia by Linden. It is very like H. fasciculata, but differs in the leaves and column.

45. DENDROBIUM criniferum.

D. *criniferum;* caulibus teretibus erectis ramosis, foliis oblongis subundulatis emarginatis, floribus axillaribus lateralibusque solitariis cernuis, sepalis ovatis, petalis linearibus acuminatis, labelli trilobi crenulati lobis lateralibus nanis intermedio apice in filis intricatis multifido lamellis binis undulatis.

An orchidaceous plant with small yellowish flowers of little beauty, introduced by His Grace the Duke of Northumberland, who received it from Mr. Power in Ceylon. It is closely allied to D. Scopa, but is readily distinguished by its slender stems, wavy leaves, and the shortness of the lateral lobes of the labellum. The breaking up the point of the lip into numerous threads is remarkable, and resembles what occurs in the bearded Bolbophylla, which are no doubt the Desmotricha of Blume.

46. COLLETIA serratifolia.

Vent. Choix. t. 15. *DeCand. Prod.* 2. 28.

This is a half hardy Peruvian shrub, with oblong serrated deciduous deep green leaves, and small, short-stalked, axillary white flowers. It is a plant of little interest, except as indicating how very different are the species of Colletia from each other in habit.

47. LYCASTE aromatica; *var.* retusa.

L. *aromatica* (Supra 1843. misc. p. 16.; var. *retusa;* floribus vitellinis, labelli lobo medio dilatato retuso.)

We have received a flower of this from Geo. Barker, Esq. of Birmingham, who obtained it from Lima. It differs from L. aromatica in having very clear yolk-of-egg-yellow flowers, without a tinge of green, and the middle lobe of the lip dilated and almost 2-lobed.

48. LYCASTE gigantea.

Lindl. in Bot. Reg. 1843. *misc. p.* 16.

This very fine plant, formerly described from Mr. Hartweg's dried specimens, has just flowered with Mr. Barker. It proves to have a very different aspect from any of the species associated with it; its flowers, whose sepals are 3½ inches long, being of a warm yellowish olive, and its lip a deep rich morone, bordered with orange, and looking like the finest velvet. As we shall soon figure it, a more particular account is deferred.

49. ASPASIA lunata.

Lindl. in Bot. Reg. sub t. 1907.

We have received this curious Brazilian epiphyte from J. C. Lyons, Esq. of Ladiston near Mullingar, by whom it was obtained from the country about Rio. It has exactly the structure of the other Aspasias, and not a double caudicula, as appeared from the drawing of M. Descourlitz, on which the species was founded. The flowers have long narrow sepals and petals, yellowish blotched with brown; the lip is large and white, and is stained in the middle with pale purple, which had not, in the specimens sent us, that distinct crescent form from which the name has been derived. The anther has a large tumour in front, and a serrated sharp-ridged crest, which gives the column much the appearance of a parrot's head.

50. MYOPORUM ascendens.

R. Brown Prodromus, p. 371.

We have received from an anonymous correspondent a flowering specimen of this very pretty shrub, which he states that he purchased in a nursery under the name of Anthocercis multiflora. It forms a compact evergreen bush, with obovate serrated leaves, from amongst which appear multitudes of white flowers delicately spotted with violet, and as large as those of a Leptospermum. It is quite an acquisition to our gardens. Being a native of the mountains of Tasmannia, (Van Diemen's Land), it is not impossible that it may prove hardy.

51. LYCASTE Barringtoniæ.

L. *Barringtoniæ* (*Epidendrum Barringtoniæ*, Smith. ic. pict. t. 25. *Dendrobium Barringtoniæ*, Swartz. Nov. Act. Ups. 6. 82. Willd. Sp. Pl. 4. 132. Hooker Exot. Fl. t. 119. *Colax Barringtoniæ*, Lindl. Bot. Reg. 897. *Dendrobium ciliatum*, Swartz. Pers. Syn. 2. 523. *Maxillaria ciliata*, Fl. Peruv. Syst. p. 221. ? Lindl. in Bot. Reg. 1206. *Maxillaria Barringtoniæ*, Lodd. Bot. Cab. t. 1824. Lindl. Gen. & Sp. Orch. no. 23.); pseudobulbis oblongis compressis costatis, foliis subternis oblongo-lanceolatis acuminatis plicatis, scapo radicali vaginato unifloro erecto pseudobulbo vix longiore, bracteâ ovarii longitudine, sepalis petalisque ovato-lanceolatis obtusis, labelli trilobi lobo medio ovato rotundato fimbriato apice concavo, callo lato omninò adnato altè sulcato apice dentato.

An examination of fresh specimens of this old plant, enables me to state that it is a true Lycaste, readily distinguished by its stout flower-stems, drooping flowers, and very deeply furrowed callus. The blossoms appear to vary in colour from green to a tawny yellow.

52. FRITILLARIA Kotschyāna.

Herbert in litteris.

F. *Kotschiana;* caule unifloro 5-6-unc. purpureo superne glauco rorato, foliis 4-6 viridibus glauco roratis semiamplexicaulibus gradatim minoribus acutioribus imo semunciam lato triunciali obtuso [variat foliis 6 omnibus alternis, vel mediis subobtusis, vel tertio et quarto angustis subæqualibus oppositis] summo angustiore in pedunculo brevi curvato, perianthio pendulo 1¼ unc. unciam patente viridi purpurâ [intus præcipuè] tessellato nectarii foveolis brevibus viridibus petalis rectis latioribus sepalis apice recurvis, antheris pallidè luteis stigmata tenuia superantibus perianthio brevioribus.—*W. Herbert.*

From a mountain called Hazartschall, in the neighbourhood of Mount Elburz, whence it was sent by M. Kotschy to the Hon. and Very Rev. the Dean of Manchester, with whom it flowered at Spofforth in April last.

53. HYMENOCALLIS bistubāta.

Herbert in litteris.

H. *bistubata;* foliis viridibus subpetiolatis 21-uncialibus 4 unc. latis acutis, scapo ancipite 17-unc. spathâ pallidâ triunciali octoflorâ, germine sessili, tubo 5¼ unc. limbo pendulè recurvo 3½ unc. coronâ ultra biunciali inferne cylindricâ superne rotatâ 1¼ unc. patente spatiis interstamineis

dentatis dentibus bis incisis, filamentis ¾-1¼ unc. tantùm liberis crateriformiter dispositis, stylo circiter biunciam excluso.—*W. Herbert.*

This is one of Mr. Hartweg's discoveries ; but it is uncertain where the bulbs were found. Among the various forms of the genus it is known by the long cylinder of its crown, which gives it a sort of "hose in hose" appearance, whence its specific name. It blossomed at Spofforth in April last.

54. DENDRŌBIUM chlorops.

D. *chlorops ;* caulibus teretibus, floribus laxè corymbosis, pedicellis filiformibus glaucescentibus, sepalis lineari-oblongis, petalis duplo latioribus obovatis, labelli trilobi plani lobis lateralibus nanis acutis intermedio lineari-oblongo apice paulò latiore basi villoso, cornu brevi conico.

A species from Bombay, with the habit of D. Heyneanum. It has small flowers of a pale nankin colour, while the base of the lip is a light pea green ; this gives the flower the appearance of having a green eye, whence the specific name. It has lately flowered with Messrs. Loddiges.

55. CATASĒTUM ochrăceum.

C. *ochraceum ;* sepalis petalisque ovatis secundis, labello cucullato integerrimo lævi apice in rostrum brevem latum obtusum carnosum contracto, cirrhis brevibus.

A new species in the way of C. luridum, with deep yellow ochre-coloured flowers. The lip is hooded, but contracted at the point into a kind of beak, thick at the edges and short. Mr. Hartweg sent it to the Horticultural Society from the Hacienda del Hospicio, in the province of Bogota.

56. BOLBOPHYLLŪM Cheiri.

B. *Cheiri ;* foliis oblongis coriaceis basi canaliculatis apice emarginatis, floribus solitariis (magnis), sepalis lanceolatis lateralibus basi ventricosis petalisque e latâ basi linearibus acuminatis in manûs speciem velut digiti conniventibus, labello mobili basi ovato concavo apice longè rostrato, columnâ edentulâ, polliniis 4 geminatis.

This very singular species was sent from Manilla to Mr. Loddiges, with whom it blossomed a few days since. The flowers are very large for the genus, the sepals being as much as an inch and a half long, a clear olive green, neatly

marked with brownish stripes. The lip is jointed so loosely with its support that it falls forward every time the flower is waved by the wind; a phenomenon common, if not universal, among the Bolbophylla, but in none of them more remarkable than in this case. Both sepals and petals are so arranged that they converge very much like the human fingers when they are brought together without being bent; this circumstance has suggested the specific name.

57. VANDA parviflōra.

V. *parviflora;* racemo simplici, sepalis oblongis, petalis linearibus spathulatis, labelli trilobi lobis lateralibus ascendentibus acutis intermedio oblongo canaliculato spongioso bilamellato apice circulari denticulato, calcare angusto obtuso.

This little plant is a native of Bombay, whence Messrs. Loddiges received it. The flowers are small, pale ochre-coloured, with a lip sprinkled all over with extremely fine purple points; the middle lobe of the lip is rather spongy, has two broad ridges, between which runs a channel, and at the point it is almost exactly circular, with a a few small toothings. The four pollen-masses adhere to a narrow strap connected with a broad gland; but the rostellum is not in any degree extended into a beak. The habit of the plant is, I am informed, that of Vanda lamellata.

58. SPATHOGLOTTIS plicāta.

Blume Bijdragen, p. 401. *t.* 76.

This very pretty plant has flowered with Messrs. Loddiges, who received it from Penang. It has light purple flowers, and has quite the appearance of Paxtonia.

59. ANEMŌNE Govaniāna.

Wall. Cat. No. 4688.

This pretty little alpine plant, from great heights on the mountains of Nepal, has flowered in the Garden of the Horticultural Society, where it was raised from seeds presented by the East India Company. It has woolly palmated rather leathery radical leaves, and umbels of white long-

stalked flowers of the Omalocarpus section, and not unlike those of A. rivularis, but the anthers are yellow, and the ovaries tail-less and smooth. It is a hardy herbaceous plant, well worth cultivation.

60. EPIDENDRUM Hanburii.

E. (Encyclium) *Hanburii*; pseudobulbis ovatis, foliis ensiformibus coriaceis recurvis, floribus racemosis distantibus, sepalis petalisque spathulatis patentibus, labelli tripartiti lobis lateralibus falcatis obtusis nanis erectis intermedio oblongo bilobo venis elevatis dichotomis sulcato ungue obtusè bicarinato glabriusculo.

A Mexican plant, with something the appearance of E. porphyreum, but far less handsome. The leaves are very coriaceous, shorter than the raceme, which is about two feet long. The sepals and petals are deep dull purple, the lip is pale rose, with crimson radiating veins. We owe it to R. Hanbury, Esq. of Stamford Hill.

61. PHYSURUS pictus.

Lindl. Gen. & Sp. Orch. p. 504.

Messrs. Loddiges have flowered this beautiful little thing, which rivals the Wana Rajah of Ceylon (Anæctochilus setaceus) in the singular beauty of the foliage. The leaves are curiously veined, and appear as if covered with a film of silver, especially when they are turned so as to allow the light to strike them obliquely. The flowers are small, white, in a short spike, and have a bar of blackish brown along the middle of each petal and sepal. It is a native of Brazil, where it has been found by several travellers. Martius met with it on the hills of Botofogo near Rio Janeiro, growing among decayed leaves.

62. DENDROBIUM.

When we some time since succeeded in breaking up the old genus Maxillaria, we had hoped to find some means of performing the same good office for Dendrobium (the Maxillaria of the East), which, as at present limited, is composed of species exceedingly different from each other in general appearance. We must confess, however, that up to the

present time, we have met with little or no success; the peculiarity of habit being accompanied with almost no differences in the structure of the flowers. Indeed, it is not an easy matter to say how Bolbophyllum and Cirrhopetalum are to be strictly defined.

Under these circumstances, we think the most useful course to be taken will be to collect the species into groups, which shall be so limited as to bring together no species that do not quite correspond in habit; and then it is to be hoped that the arrangement will be but little disturbed, in case distinctions good enough for genera should be hereafter made out. In doing this I shall endeavour to observe as nearly as possible the course already taken by Blume, whose plants, however, I have never had the advantage of examining.

Among the crowd of species which constitute this genus, there is a large set, of which D. Pierardi may be taken as the example, all which have thin flat leaves, slender stems, and flowers growing uniformly in pairs from the sides of the stem opposite the leaves. They may be regarded as constituting Dendrobium proper, and therefore the first step will be to place them in one group, of which the following is the enumeration.

Sect. 1. EUDENDROBIUM. *Stems slender; Leaves, thin and flat; Flowers in pairs, or threes, opposite the leaves.* (*Grastidium* Blume.)

A. Lip undivided.

1. D. *macrophyllum* (Lindl. in Bot. Reg. 1839. p. 36. Sertum Orchidaceum, t. 35. *Dendrobium macranthum*, Bot. Mag. t. 3970); caulibus pendulis, foliis ovato-oblongis obtusis nervosis basi subcordatis, sepalis lanceolatis lateralibus parùm productis, petalis oblongis acutis, labello pubescente convoluto denticulato subunguiculato ovato callo baseos elevato transverso obsoletè trilobo.——*Manilla.* ——This is one of the handsomest species. The flowers are nine inches in circumference. The sepals and petals are a clear and bright rose-colour, the lip is downy and deeply stained with two large broad blood-red blotches at its base.

2. D. *moniliforme* (*Fu Ran*, Kæmpf. amœn. t. 865. *Epidendrum moniliforme*, Linn. sp. pl. 1352. *Dendrobium moniliforme*, Swartz act. Holm. 1800. p. 246. Willd.

no. 19. Bot. Reg. t. 1314. L. no. 40); caulibus erectis ramosis, internodiis tumidis, foliis oblongis obliquè emarginatis obtusis, floribus geminatis foliis longioribus, sepalis petalisque oblongis acutis, labello cucullato acuto serrulato intus pubescente.——*Japan.*——This is very near D. cœrulescens, from which it is mainly distinguished by its stem contracted at every joint, and its serrated lip.

3. D. *cœrulescens* (Lindl. Sertum, t. 17); facie omnino D. nobilis, floribus nunc ternatis, petalis angustioribus margine reflexis valdè undulatis, labello ovali acuminato intus villoso——*E. Indies.*——The form of the petals, and especially of the lip, principally distinguish this from D. nobile. Its flowers are also smaller.

4. D. *nobile* (Lindl. Gen. no. 24. Sertum, t. 3); caulibus teretibus erectis, foliis oblongis obliquè emarginatis obtusis, floribus geminatis, sepalis ovalibus, petalis duplo majoribus undulatis, labello ovato subrotundo cucullato villoso.——*China.*——Flowers large, showy, violet, with a very dark purple stain in the interior of the lip.

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5. D. *pulchellum* (Roxb. L. 35. Lodd. Bot. Cab. t. 1935); caulibus teretibus pendulis, foliis oblongo-lanceolatis subplicatis, racemis lateralibus strictis multifloris, bracteis brevibus ovatis obtusis, sepalis ovatis acuminatis subcostatis, petalis oblongis obtusis tenuioribus et latioribus, labello unguiculato cochleariformi obtusissimo ciliato. ——*Sylhet.*——Sepals whitish. Petals pink. Lip pink at the edge with a yellow centre. A most charming species.

6. D. *Devonianum* (Paxton Mag. 7. 169); caulibus pendulis, foliis ovato-lanceolatis acutis, pedunculis 2-3-floris, sepalis oblongis acutis integris, petalis duplò latioribus fimbriatis, labello maximo cochleariformi margine plumoso——*Khoseea Hills of India.*——The King of Dendrobiums. Sepals rose-colour. Petals and lip lemon-colour, tipped with purple, the latter with a broad yellow blotch in the middle.

7. D. *Pierardi* (Roxb.! Fl. ind. 3. 482. Hooker Exotic Flora, t. 9. Bot. Reg. t. 1756); caulibus pendulis glabris, foliis ovato-lanceolatis acutis, floribus geminatis, sepalis acuminatis membranaceis, petalis sepalo supremo

majoribus acuminatis, labello cucullato dilatato subtruncato pubescente ciliato.——*E. Indies.*——Flowers delicate pink, with a pale yellow lip, not sweet-scented.

8. D. *cucullatum* (R. Brown in Bot. Reg. t. 548. ibid. t. 1756, fig. 2); facie omnino D. Pierardi sed labello subrotundo-ovato basi in unguem brevem convoluto——*E. Indies.*——Extremely like D. Pierardi, but it has larger flowers, with a broad roundish ovate lip, the base of which is rolled up into a sort of short stalk; while in D. Pierardi the lip is rounded and very blunt, with its base rolled into a much longer stalk which quite conceals the column. It is moreover remarkably incurved.

9. D. *transparens* (Wallich. Cat. no. 2008); caulibus pendulis teretibus, foliis ovato-lanceolatis acuminatis apice obliquis, floribus geminatis, sepalis acuminatis, petalis obtusis sepalo supremo majoribus, labello oblongo undulato ciliolato obtuso intùs levissimè pubescente.——*Nepal.*——Flowers pale rose-colour, with a lip of the same tint. Very like D. Pierardi, from which it is distinguished by its leaves being longer and emarginate at the apex, by the petals being obtuse and the labellum much less hairy, and pink not yellow. The stems are also far shorter.

10. D. *amœnum* (Wall. L. no. 21. *Limodorum aphyllum*, Roxb. corom. 1. t. 41. *Cymbidium aphyllum*, Willd. sp. f. 4); caulibus pendulis gracilibus nebulosis floriferis aphyllis, foliis lanceolatis acutis, floribus geminatis racemum spurium formantibus longè pedunculatis divaricatis, sepalis oblongis obtusis, petalis obtusis sepalo supremo paulò majoribus, labelli cucullati limbo ovato obtuso crenulato leviter ciliato: disco villoso.——*Nepal.*——This lovely species is abundantly distinguished by its slender stems, leafless, and clouded with dusky brown when in blossom; and also by its delicate white flowers, the tips of whose segments are remarkably blunt and tinged with delicate violet. Dr. Wallich remarks in his MSS. that its fragrance is exquisite, not unlike that of Olea fragrans.

11. D. *heterocarpum* (Wall. L. no. 20); caulibus teretibus pendulis, foliis oblongis acutis planis, floribus geminatis odoratis racemum spurium formantibus, sepalis lineari-oblongis acutis, petalis ovatis acutis sepalo supremo

majoribus, labello unguiculato, limbo subpanduriformi holosericeo medio elongato acuminato plano.——*Nepal.* ——Very near D. cucullatum from which it is distinguished by its pale yellow fragrant flowers, and the form of the labellum.

12. D. *macrostachyum* (L. no. 19. Bot. Reg. t. 1865); caulibus teretibus pendulis flagelliformibus, foliis ovato-lanceolatis submembranaceis, floribus ternatis racemum spurium formantibus, sepalis ovatis acutis, petalis lanceolatis sepalo supremo subæqualibus, labello cucullato venoso: limbo ovato obtuso ciliato intùs pubescente.——*Ceylon.*——Flowers pale yellow, smaller than in D. Pierardi. Lip streaked with purple veins.

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13. D. *foliosum* (Ad. Brongn. in Duperr. Voy. t. 41).
14. D. *gemellum* (L. no. 28. *Pedilonum biflorum,* Blume, p. 322); foliis membranaceis lanceolatis acuminatis, pedunculis oppositifoliis subbifloris, labello ovali acuto apice subcrispo lamellis tribus serrulatis inconspicuis. ——*Sincapore, Java.*——A long-stemmed grassy-leaved plant, with small pale yellowish green flowers, growing in pairs from short rigid two-valved truncated compressed spathes, placed opposite the leaves. In this respect it is like *D. biflorum,* of which it has all the habit; but the lip is perfectly entire and not three-lobed.
15. D. *rugosum* (L. no. 57. *Grastidium rugosum,* Blume, p. 333); foliis subcoriaceis lanceolatis apice emarginatis, sepalis et labelli limbo acuminatis, labello intùs membranaceo-rugoso.——*Java.*——Flowers pale yellow.
16. D. *salaccense* (L. no. 56. *Grastidium salaccense,* Blume, p. 333); foliis membranaceis lineari-lanceolatis obliquè retusis, sepalis acutis, labello obtuso intùs 1-lineato. ——*Java.*——Flowers deep yellow.
17. D. *acuminatissimum* (L. no. 55. *Grastidium acuminatissimum,* Blume, p. 335); foliis membranaceis linearibus sepalisque acuminatissimis.——*Java.*——Flowers greenish.

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18. D. *chrysanthum* (Wall. Cat. no. 2012. Bot. Reg. 1299 & 25); caulibus teretibus pendulis, foliis contortis ovato-lanceolatis acuminatis, floribus inter folia nascentibus, sepalis carnosis oblongis obtusis: venis extùs tuber-

culatis, petalis obovatis retusis carnosis sepalo supremo latioribus, labello cucullato denticulato retuso obsoletè trilobo.——*Nepal.*——Flowers dark yellow, occasionally in threes, marked externally with distinct warts. Lip with a deep purple spot on each side.

19. D. *Paxtoni* (Lindl. in Bot. Reg. Misc. 1839, no. 56); caulibus teretibus sulcatis, foliis ovato-lanceolatis acuminatis apice hinc obsoletè emarginatis, pedunculis bifloris, sepalis oblongis acutis lateralibus basi parùm productis, petalis latioribus obovatis acutis serrulatis, labello unguiculato ovato concavo indiviso villoso margine multifido fimbriato.——*Khoseea Hills of India.*——This has orange-yellow flowers, with a deep brown spot in the middle of the lip. It differs from D. chrysanthum in having the petals serrated, and the surface and edge of the lip hairy.

20. D. *ochreatum* (Lindl. in Wall. Cat. no. 7410. Bot. Reg. sub fol. 1756. *D. Cambridgeanum*, Paxton, Mag. Bot. vi. 265); caulibus pendulis medio incrassatis, foliis ovalibus acutissimis, pedunculis bifloris, petalis lanceolatis sepalis latioribus, labello cucullato rotundato indiviso supra piloso.——*Khoseea Hills of India.*——A beautiful species, with large rich yellow flowers, having a deep purple stain in the middle of the lip, which is entire and hairy.

21. D. *aureum* (Lindl. Gen. & Sp. Orch. p. 78. Bot. Reg. 1839. t. 20); caulibus erectis teretibus clavatis internodiis brevibus, foliis lineari-oblongis apice obliquis emarginatis, pedunculis subbifloris aggregatis lateralibus, sepalis lineari-ovatis acuminatis obtusis, petalis latioribus ovatis acutis undulatis, labello ovali undulato obtusiusculo indiviso medio serrulato per axim pubescente.——*Ceylon.*——The species varies with pale yellow and white flowers. In both varieties the fragrance is remarkable, forming a something intermediate between violets and primroses.

22. D. *sulcatum* (Lindl. in Bot. Reg. 1838. t. 65); caule erecto clavato sulcato subflexuoso compresso, foliis oblongis acutis 3-nerviis, pedunculis lateralibus trifloris, bracteis minimis acutis appressis, petalis oblongis obtusis glabris sepalis subæqualibus, labello obcordato hirsuto ungue canaliculato sulcato.

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23. D. *nutans* (L. no. 73.); caulibus erectis subclavatis hispidis apice foliosis, foliis ovato-lanceolatis apice valdè obliquè uncinato-bilobis, pedunculis subterminalibus bifloris foliis brevioribus, bracteis minimis, petalis sepalisque lineari-lanceolatis acuminatis æqualibus membranaceis, labello conformi carnoso crenulato indiviso, capsulis oblongis nutantibus.——*Ceylon.*——Leaves small. Flowers small, white, slightly tinged with green; lip yellow.

24. D. *candidum* (Wallich in Bot. Reg. 1838, misc. 54); caulibus erectis flexuosis teretibus, foliis ovato-lanceolatis apice obliquis obtusis, pedunculis axillaribus erectis bifloris, sepalis patulis lateralibus basi parùm productis, petalis conformibus, labello ovato-lanceolato obtuso medio barbato supra basin calloso lateribus erectis cucullatis. ——*Khooseea Hills of India.*——Flowers small, pure white, sweet-scented. Stems about a foot high.

25. D. *stuposum* (Lindl. in Bot. Reg. 1838. misc. 94); caule erecto tereti, foliis lineari-oblongis obliquè emarginatis, pedunculis bifloris, bracteis obtusis cucullatis, sepalis petalisque erectis lateralibus carinatis, labello oblongo cucullato obtuso sub apice calloso stuposo.——*E. Indies.* ——Flowers white, small. Lip with a deep orange callus below its point, where it is thickly covered with a coarse tow-like hairiness.

B. Lip 3-lobed.

26. D. *Ruckeri* (Lindl. in Bot. Reg. 1843. misc. 38. t. 60); caulibus teretibus, foliis ovato-lanceolatis acuminatis planis, floribus gemellis, sepalis patulis obtusiusculis convexis margine reflexis lateralibus subtriangularibus, labelli trilobi lobis rotundatis intermedio undulato axi elevatâ villosâ.——*Philippines?*——A fine species. Flowers large, yellow. Lip white outside, yellow and brown inside.

27. D. *sanguinolentum* (Lindl. in Bot. Reg. 1842. misc. 73. 1843. t. 6); caulibus teretibus pendulis, foliis ovato-lanceolatis, floribus gemellis, sepalis petalisque ovatis obtusiusculis patulis, labello trilobo glabro: laciniâ intermediâ retusâ nunc utrinque plicatâ; ungue concavo brevi appendice cornuformi pubescente retrorsâ aucto.——

Ceylon.——This has pendulous stems like those of D. Pierardi, but of a delicate purple when young; the leaves too are stained underneath and at the edges with the same colour. The flowers are as large as those of D. aggregatum, of a clear fawn colour, with the tips of the segments and lip stained with a deep rich violet. There is moreover a *scarlet* spot in the middle of the lip.

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28. D. *revolutum* (Lindl. in Bot. Reg. 1840, misc. 110); caulibus obtusè ancipitibus, foliis ovato-oblongis obtusis apice obliquis emarginatis basi subcarinatis, floribus solitariis oppositifoliis, sepalis petalisque acutissimis revolutis, labello carnoso convexo obtuso subtrilobo aut rhombeo per medium exarato (s. lamellis duabus inflexis parallelis instructo) lineis tribus discoloribus.——*Sincapore.*——Flowers straw-coloured, and about the size of those of D. Pierardi, but their lip is fleshy, convex, almost lozenge-shaped, and marked with 3 brown lines.
29. D. *excisum* (Lindl. in Bot. Reg. 1841. misc. 165); foliis lineari-oblongis obliquè retusis, floribus (solitariis?) oppositifoliis basi squamatis, sepalis petalisque acuminatis, labello oblongo acuto carnoso basi utrinque exciso: disco latè glanduloso, cornu pedicello ferè duplò breviore. ——*Sincapore.*——A small species with the habit of D. pulchellum, but with white inconspicuous flowers.
30. D. *aqueum* (Lindl. in Bot. Reg. 1843. misc. 6. t. 54); foliis ovato-oblongis undulatis acuminatis, floribus patulis cornu brevi obtuso, sepalis petalisque ovatis, labelli trilobi pubescentis laciniâ mediâ ovatâ denticulatâ basi altè excavatâ lateralibus latioribus rotundatis margine anteriore serrulato.——*Bombay.*——With the manner of growth of D. Pierardi, the pale watery green flowers of this are quite destitute of the attractive colours of that gay species, and are entirely different in the structure of the lip, which is furnished with a large cavity, almost a pouch at the base of the middle lobe. It is also a much stouter plant with wavy leaves.
31. D. *longicornu* (Lindl. in Wall. Cat. no. 1997. Bot. Reg. t. 1315. Gen. et Sp. Orch. no. 26); caulibus erectis hispidis flexuosis, foliis ovato-lanceolatis apice valdè obliquis, floribus fasciculatis v. solitariis terminalibus, bracteis ovatis acuminatis hispidis pedicello multò brevio-

ribus, sepalis lateralibus in calcare longo acuminato connatis, petalis sepalo supremo conformibus, labello infundibulari cucullato integro dentato basi cum pede columnæ accreto.——*Nepal.*——Flowers large, white. Lip yellow, with orange-coloured veins. A very fine species.

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32. D. *tridentiferum* (Lindl. in Hooker's Journal of Botany, vol. 3); foliis oblongo-lanceolatis obliquè emarginatis, gemmis paleaceis, floribus geminis, sepalis lateralibus ovatis carnosis obliquis, petalis lanceolato-oblongis acutis membranaceis, labello carnoso trifido basi tuberculo carnoso lineâque utrinque elevatâ acuto: lobis acutis lateralibus antrorsum curvis intermedio ovato, cornu brevi obtuso.——*New Guinea.*——A broad-leaved species looking like D. biflorum to which it is nearly allied. It has fleshy flowers as large as those of D. Pierardi.

33. D. *Luzonense;* foliis distichis angustè lanceolatis apice oblique emarginatis, pedunculis brevibus 2-floris, labello spathulato obtusissimo laciniis lateralibus obsoletis denticulatis.——*Luzon.*——A small-flowered plant, with very closely set distichous leaves.

34. D. *Cunninghamii* (Lindl. in Bot. Reg. sub t. 1756. D. *biflorum*, Ach. Rich. sub Astrolab. t. 26); caulibus gracilibus pendulis ramosis vaginis foliorum corneis transversim corrugatis squamatis, foliis ovato-linearibus obtusiusculis, pedunculis oppositifoliis bifloris foliis multò brevioribus, sepalis ovatis acutis, petalis oblongis acutis latioribus, labelli trilobi lobo intermedio subrotundo undulato basi 5-lamellato lateralibus nanis acutis.——*New Zealand.*——Stems very slender, much branched. Flowers white.

35. D. *biflorum* (*Epidendrum biflorum*, Forst.! Prodr. n. 318. *Dendrobium biflorum*, Swartz. act. Holm. 1800. p. 246. Willd. no. 17. and no. 18); caule pendulo gracili tereti, foliis lineari-lanceolatis acuminatis planis, pedunculis bifloris lateralibus e paleis corneis erumpentibus, sepalis petalisque acuminatissimis, labello rhomboideo medio bilamellato trilobo lobis lateralibus acutis nanis intermedio deltoideo acuminato margine fimbriato.——*Society Islands.*——Leaves very narrow and grassy. Flowers very small, with setaceous points.

36. D. *calcaratum* (Lindl. in Bot. Reg. 1840. misc. 219); caulibus nigro-pubescentibus, foliis linearibus obliquè

bilobis, floribus resupinatis, sepalis ovatis lateralibus revolutis basi in cornu conicum pedicelli longitudine productis, petalis lineari-lanceolatis, labelli linearis carnosi lævis trilobi laciniâ intermediâ subrotundâ marginibus incurvis ungue cum columnæ pede in calcar verum connato.——*Sincapore.*——A slender inconspicuous species, allied to D. *revolutum* and *biflorum*; with green flowers growing in pairs opposite the leaves.

37. D. *bilobum* (Lindl. in Hook. Journ. Bot. vol. 3); foliis linearibus obtusis apice subæqualibus bilobis, floribus membranaceis minutis (solitariis?), sepalis obtusis, petalis duplò minoribus apiculatis, labello libero elongato obovato apice carnoso trilobo: laciniâ mediâ verrucosâ, cornu elongato obtuso.——*New Guinea.*——A small inconspicuous species, with the appearance of Isochilus linearis.

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38. D. *pugioniforme* (A. Cunn. in Bot. Reg. 1839. misc. 34); caulibus repentibus nodoso-articulatis radicalibus setoso-stipulatis, foliis elliptico-lanceolatis apice attenuatis acutis carnosis infra fere convexis carinatis lævibus nitentibus, floribus (resupinatis) subsolitariis axillaribus, perianthii foliolis oblongo-lanceolatis acutis patentibus, labello longitudinaliter tricarinato, lobo intermedio dilatato undulato-crispato apice acuto recurvato.——*N. Holland.*——A beautiful epiphyte, hanging loosely from the stems of trees, so as to swing freely to the wind that sweeps through the forests on the summit of the belt of mountain bounding the coast district of Illawarra, on the west (lat. 34½ S.)

Very nearly allied to this section of the genus are those Dendrobia, which, with slender stems and thin flat leaves, have flowers growing in racemes. They form a group which may be subdivided upon the same principle as the last.

Sect. II. Stachyobium. *Stems slender; Leaves thin and flat; Flowers in racemes.*

A. Lip undivided.

39. D. *aduncum* (Lindl. in Bot. Reg. 1842. misc. 62); caulibus pendulis, foliis lineari-lanceolatis acutis integris,

floribus ternis patentibus, sepalis petalisque ovatis obtusis lateralibus duplò latioribus, cornu rotundato, labello unguiculato ovato concavo apiculato columnæ arctè appresso intùs villoso disco glabro, columnâ apice bialatâ sub stigmate villosâ, antherâ glanbulosâ.——*East Indies.* ——This is a beautiful species allied to D. Pierardi, near which it should perhaps be placed, rather than in this division. The flowers are almost transparent, of the most delicate pink, and nearly as large as in D. moschatum.

40. D. *formosum* (Roxb. fl. ind. 3. 485. L. p. 81. Wall. pl. as. rar. t. 39. Bot. Reg. 1839. t. 64); caulibus teretibus pendulis pilosis, foliis distichis ovatis apice obliquè emarginatis obtusis, racemo brevi terminali 4-5-floro, bracteis brevibus ovatis, (floribus maximis), sepalis oblongis acutis: lateralibus basi longè productis, petalis duplò latioribus acutis, labello obovato dilatato retuso cum basi columnæ in calcar obtusum connato.——*East Indies.*——One of the finest of the genus, with very large white flowers in terminal racemes.

41. D. *rhombeum* (Lindl. in Bot. Reg. 1843. t. 17); caulibus teretibus foliosis, foliis lanceolatis acutis, racemis brevibus 4-floris, sepalis ovalibus obtusis, petalis duplò latioribus ovatis, labello rhombeo undulato acuto medio pubescente, columnâ utrinque tuberculatâ pone basin cornu deflexo auctâ, antherâ pubescente.——*Manilla.*——This species has much general resemblance to D. aureum, from which however it differs in having smaller blossoms, a labellum without serratures, and the flowers in short racemes instead of pairs. Here, as in some other cases, the column is furnished, near the base, with a deflexed horn lodged in a niche just above the insertion of the lip. This is a remarkable process, whose nature requires to be investigated. Is it the unguiculus of Blume?

42. D. *fimbriatum* (Hooker. Exot. Fl. 71. Wall. Cat. no. 2011. L. no. 38); caulibus teretibus pendulis, foliis ovato-lanceolatis, racemis lateralibus multifloris, sepalis oblongis undulatis patentissimis, petalis majoribus undulatis ciliatis, labello indiviso rotundato convexo fimbriato, fimbriis laceris.——*Nepal, Burma.*——Flowers very deep yellow, sometimes stained with crimson at the base of the lip. It has much the appearance of Dendrobium

chrysanthum, from which it is distinguishable both by its inflorescence and the different shape of its petals.

43. D. *polyanthum* (Wall. Cat. no. 2009. L. no. 31); caulibus teretibus pendulis, foliis oblongo-lanceolatis apice integris, racemis 3-4-floris lateralibus foliis brevioribus, sepalis lanceolatis: lateralibus supremo subæqualibus, petalis majoribus oblongis undulatis, obtusis, labello obovato cucullato ciliato, capsulis fusiformibus apteris. ——*Moolmayne.*——This plant is evidently very near D. moschatum. It however appears to have smaller flowers, with far narrower segments, and, as far as can be ascertained from dried specimens, they are nearly colourless, except the lip, which is yellow.

44. D. *moschatum* (Wallich in L. no. 36. Hooker in Bot. Mag. t. 3837. *Cymbidium moschatum*, Willd. *Epidendrum moschatum*, Hamilt. in Symes' Ava, 3. 315. c. ic. *D. Calceolus*, Hooker ex. fl. t. 184. L. no. 37. *D. cupreum*, Herbert in Bot. Reg. t. 1779. *D. clavatum*, Wall. cat. no. 2004); caulibus teretibus pendulis, foliis lineari-lanceolatis oblongisque, racemis lateralibus laxis 5-6-floris, bracteis pedicellis 3-plò brevioribus, sepalis patentissimis petalisque oblongis obtusis latioribus venosis reticulatis, labello unguiculato calceolari obtusissimo margine abruptè inflexo pubescente.——*Burma, Pegu, Ava, Sylhet.*——This beautiful plant, with large nankin coloured flowers, stained and veined with crimson, is readily known by its labellum, whose edge is turned inwards and delicately fringed with hairs. Its odour is compared by some to musk, by others to rhubarb, and by others to wood-roof.

45. D. *calcaratum* (A. Richard Sert. Astrolab. t. 7); caule ramoso quasi articulato florifero aphyllo, foliis lineari-lanceolatis acutis, floribus spicato-corymbosis, bracteis linearibus acutis glabris, sepalis lateralibus in cornu clavatum fissum productis, labello lineari subspathulato plano acuto.——*Vanikoro.*——Known to me only by the figure and description in the Voyage of the Astrolabe. It has the habit of D. ramosum. Possibly it should be referred to the § Pedilonum.

46. D. *flavescens* (L. no. 48. *Onychium flavescens*, Blume, p. 325); ebulbe, foliis paucis lineari-lanceolatis obtusis basi canaliculatis, floribus alternis subspicatis terminali-

bus pubentibus, labello intùs pubescente, limbo emarginato plicato.——*Java.*——Flowers small, yellow.

47. D. *nudum* (L. no. 49. *Onychium nudum*, Blume, p. 325); foliis lineari-lanceolatis inæquali-acuminatis membranaceis, racemis paucifloris, sepalis interioribus lanceolatis dorsali angustioribus.——*Java.*——Stems jointed, zigzag at the upper part. Flowers pale purple, changing to yellow. Labellum with a little claw at the base; according to Blume.

48. D. *ramosum* (L. no. 34); caulibus pendulis gracilibus ramosis glabris, foliis lanceolatis acuminatis apice integerrimis, floribus subracemosis, bracteis membranaceis reflexis obtusis, sepalis lateralibus magnis in cornu elongatum rectum connatis, petalis minoribus, labello cucullato acuto crispo.——*India.*——This plant is only known by some imperfect specimens distributed by Dr. Wallich. It is much more slender than D. Pierardi, has an evident tendency to branch, and appears to be a distinct species. It however requires further examination. It is near D. herbaceum; but the flowers have a long and conspicuous spur.

49. D. *herbaceum* (Lindl. Bot. Reg. 1840, misc. 153); caulibus ramosis teretibus glabris, foliis lineari-lanceolatis acuminatis apice obliquè bilobis, racemo paucifloro terminali, sepalis lateralibus basi paulo productis dorsali petalisque linearibus, labello lanceolato integerrimo nudo, clinandrio biauri.——*East Indies.*——A small branching plant, with leaves from two to three inches long, and inconspicuous greenish flowers.

50. D. *mutabile* (L. no. 50. *Onychium mutabile*, Blume, p. 324); foliis lineari-lanceolatis obtusis obliquè retusis membranaceis.——*Java.*——Flowers pale rose-colour, in very close racemes. Column downy in front. Petals broader than the upper sepal. Labellum with three sulphur yellow glands, furnished at the base with a free claw, according to Dr. Blume.

51. D. *sclerophyllum* (*D. rigidum*, L. no. 51. nec R. Br. *Onychium rigidum*, Blume, p. 324); foliis lato-lanceolatis obliquè retusis rigidis.——*Java.*——Flowers whitish, with three yellow glands. Dr. Blume doubts whether it may not be a variety of his D. mutabile, but he says that its parts are more firm.

52. D. *auriferum* (L. no. 39); caulibus teretibus pendulis, foliis oblongis obtusis integris, racemis lateralibus horizontalibus clavatis foliorum longitudine, bracteis cucullatis densè imbricatis, sepalis petalis labelloque lineari-lanceolatis conniventibus acuminatissimis.——*China.* ——Stem slender, throwing out very long roots from its sides. Leaves oblong-lanceolate. Flowers about an inch long, bright yellow, arising from short broad imbricated bracts, which are much longer than the spaces between them. Known only from a drawing in the possession of the Horticultural Society.

B. Lip 3-lobed.

53. D. *barbatulum* (L. no. 44. *D. chlorops,* Lindl. in Bot. Reg. 1844. misc. 54); caulibus teretibus, floribus laxè corymbosis, pedicellis filiformibus glaucescentibus, sepalis lineari-oblongis, petalis duplo latioribus obovatis, labelli trilobi plani lobis lateralibus nanis acutis intermedio lineari-oblongo apice paulò latiore basi villoso, cornu brevi conico.——*Bombay.*——A species with the habit of D. Heyneanum. It has small flowers of a pale nankin colour, while the base of the lip is a light pea green; this gives the flower the appearance of having a green eye. When dried the parts of the flower become extremely thin and difficult to examine; and I was thus led to suppose that the lip was undivided. I have however ascertained that it is really three-lobed, and that my D. chlorops is the same species, more correctly defined.

54. D. *lancifolium* (Ach. Richard Sert. Astrolab. t. 8); caule erecto ramoso folioso tereti glabro, foliis angustè lanceolato-linearibus acutis, floribus purpurascentibus sæpiùs quaternis pedicellatis subspicatis, sepalis lanceolatis acutis, labelli unguiculati trilobi lobo medio latiore ovato margine subcrispo lateralibus obtusis subcrispis planis. ——*Moluccas*——Only known to us by M. Richard's description. It is a branching species, having little resemblance to the plants here placed near it.

55. D. *bicameratum* (Lindl. in Bot. Reg. 1839. misc. 85); caulibus fusiformibus, foliis lineari-lanceolatis apice obliquè bidentatis, pedunculis lateralibus squamatis 4-floris, floribus concavis subcarnosis, sepalis petalisque subrotundo-ovatis acutis, labelli trilobi laciniâ intermediâ ro-

tundatâ apiculatâ carnosâ lateralibus triangularibus acutis breviore, columnæ facie excavatâ semibiloculari.——*North of India.*——The stems grow nearly upright, and are rather short, fusiform and furrowed when old. The flowers are a little smaller than those of Maxillaria stapelioides, and like them in form; their colour is dull yellow, spotted and streaked with purple. In the only specimen I have ever seen the flowers grew in fours, on a very short peduncle, closely covered with ovate concave bracts, speckled with purple. The excavation of the face of the column, and its division into two cells are remarkable.

56. D. *elongatum* (A. Cunn. Bot. Reg. 1839. misc. 33); caulibus teretibus sulcatis elongatis erectis 4-5-phyllis, foliis ovato- lanceolatis acutiusculis apice obliquis emarginatis, racemo terminali multifloro, foliolis perianthii ovatis obtusiusculis, labelli disco 3-carinato lobo intermedio lato cordiformi.——*Shaded dark woods, on the banks of the Brisbane River, New Holland.*——This plant has erect stems about a foot and a half high, at the end of which grow about four lanceolate leaves, from the midst of which springs a raceme of yellowish flowers spotted with red. They seem unwilling or unable to expand.

57. D. *bicolor* (L. no. 74); caulibus erectis elongatis subclavatis apice foliosis, foliis lanceolatis acutis, racemo brevi erecto terminali v. subterminali 3-4-floro foliis multò breviore, bracteis oblongis obtusis petaloideis venosis, petalis sepalisque oblongis obtusis æqualibus, labello trilobo obtuso: lobis lateralibus erectis rotundatis.——*Ceylon.*——Bracts large, oblong, petaloid, veiny, two-coloured, green at the point, brownish red at the base. Flowers nearly white. This is scarcely known except from a drawing, and I am by no means sure that it is not an Eria.

58. D. *catenatum* (L. no. 41. *Epidendrum monile*, Thunb. Fl. Jap.); caulibus teretibus erectis: internodiis tumidis, foliis lineari-lanceolatis acutis, racemis lateralibus 4-5-floris, sepalis petalisque lanceolatis acuminatis, labello oblongo apice trilobo.——*Japan, China.*——This has regularly jointed stems, 5 or 6 inches high, small narrow leaves and flowers with green sepals and white petals. I only know it from a Chinese drawing in the possession of the Horticultural Society.

59. D. *denudans* (Don. Prodr. 34. Wall. Cat. no. 2014. L. no. 42); caulibus brevibus cæspitosis erectis vaginis laxis foliorum vestitis, foliis oblongo-lanceolatis submembranaceis apice obliquis emarginatis, racemis lateralibus terminalibusque nutantibus multifloris, sepalis acuminatis: lateralibus basi incurvis, petalis minoribus, labelli trilobi oblongi lobo medio acuminato crispo lateralibus serratis, disco bilamellato.——*Nepal.*——Flowers greenish white. Lip green, whole-coloured. This species is the most variable that I know in point of size. Some of Dr. Wallich's specimens are not more than an inch and half high, with two or three leaves and as many flowers on each individual, while others are six or seven inches high, with numerous distichous leaves, and three or four long nodding racemes, each consisting of eight or nine flowers. The species is always distinguishable by the loose membranous sheaths which clothe the stem when the leaves have fallen off.

60. D. *alpestre* (Royle Illustr. t. 88. fig. 2); caulibus brevissimis ovatis 3-4-phyllis, foliis lineari-oblongis, racemis 3-5-floris erectis, sepalis acuminatis cornu brevi obtuso, petalis minoribus, labelli trilobi lanceolati lobo medio acuminato crispo basi angustato lateralibus laceris, disco bilamellato.——*Himalayas.*——Stems and leaves only a few inches high. Flowers white, with a purplish lip.

61. D. *cuspidatum* (Lindl. no. 43); caulibus brevibus erectis 3-5-phyllis, foliis lineari-oblongis apice obliquis emarginatis, racemis terminalibus 3-4-floris foliis brevioribus, bracteis lineari-ovatis acutis, petalis sepalisque lineari-lanceolatis acuminatis æqualibus: horum lateralibus basi incurvis cornu referentibus, labelli trilobi petalis duplò brevioris lobis lateralibus maximis erectis rotundatis integerrimis: intermedio ovato acuminato.——*Tavoy.*——This resembles in many respects D. denudans, from which it is abundantly distinguished by the loose sheaths of the fallen leaves not covering the stem, and by the peculiar form of the lip. My specimens are from three to four inches high. The flowers appear to be white.

62. D. *microbolbon* (Ach. Richard. Ann. Sc. n. s. 15. t. 8); caulibus parvis ovatis aggregatis diphyllis, foliis oblongo-linearibus submembranaceis acutis, scapo gracili foliis longiori apice trifloro, racemo trifloro, petalis linearibus

obtusis, labello crasso erecto arcuato subcanaliculato quasi trilobo, lobis lateralibus minimis medio rotundato obsoletè crenulato.——*Nilgherries.*——About three or four inches high. Lip pale green. Sepals whitish flesh-colour.

63. D. *pygmæum* (Lindl. no. 45. *Dendrobium pusillum,* Don. Prodr. 35); caulibus erectis cæspitosis vaginis laxis foliorum vestitis, foliis lineari-lanceolatis, racemis suberectis terminalibus multifloris foliorum longitudine, rachi angulato, bracteis membranaceis acuminatis, sepalis inferioribus ovatis acuminatis ad basin cornu incurvo connatis: supremo petalisque lineari-spatulatis acutis, labello unguiculato cuneato integro: callis duobus longitudinalibus in disco; margine anteriore carnoso crispo plicato lobo intermedio ovato.——*Martaban.*——A very small plant, forming tufts. Very near D. microbulbon, but different in the form of the lip; and the flowers are much smaller.

Nearly allied to the racemose Dendrobia just described is that curious race, already enumerated at t. 28 of our volume for last year, under the name of Spatulata. They are plants with hard stiff slender stems, clothed with coriaceous distichous leaves, and bear their flowers in long lateral many-flowered racemes. They are all remarkable for having the petals considerably longer than the sepals. In order to preserve some uniformity in nomenclature I would propose the name Ceratobium for them.

Sect. III. Ceratobium. *Stems erect, slender. Leaves coriaceous, distichous. Racemes lateral, many-flowered. Petals much longer than the sepals.*

64. D. *taurinum* (Lindl. in Bot. Reg. 1843. t. 28.); foliis oblongis obliquè emarginatis, racemo oblongo, sepalis ovatis obtusiusculis, petalis linearibus contortis duplò longioribus, labello oblongo apice crispo per axin lineis 3 elevatis intermediâ apice flexuosâ aucto.——*Manilla.*——This has large flowers, with yellowish green sepals, rolled back at the points, very long deep purple twisted petals, and a paler purple lip, with three elevated lines along the middle, and a few small tubercles near the apex. The stem is five feet high.

65. D. *Mirbelianum* (Gaudich. Voyage, t. 38.); foliis ovato-oblongis obtusis, racemis ovatis longè pedunculatis, sepalis ovato-lanceolatis acutis erectis, petalis spathulatis unguiculatis obtusis longioribus, labelli trilobi ovato-lanceolati subsessilis lobis lateralibus rotundatis intermedio lanceolato undulato acuto, lineis tribus elevatis lateralibus versus basin duplicibus.——*New Guinea.*——The racemes, including their peduncle, are more than a foot long. The petals are an inch and a half long.

66. D. *veratrifolium* (Lindl. in London Jour. Bot. 2. 235.); foliis oblongis obtusis amplexicaulibus 9-11-nerviis, racemo terminali elongato multifloro, sepalis undulatis acutis, petalis spathulatis obtusis planis vix duplò longioribus, labello oblongo obtuso membranaceo venis tribus elevatis per axin duabusque minoribus lateralibus: lobis lateralibus nanis obtusis intermedio oblongo undulato.——*New Guinea.*——A most beautiful plant, with racemes a foot and a half long, loaded with flowers, whose spatula-shaped petals are an inch and more in length. The inflorescence is very loose in this; in D. Mirbelianum it is far more compact.

67. D. *macranthum* (A. Rich. Sert. Astrolab. p. 15. t. 6.); foliis ellipticis apice obliquo subbilobis, racemo longipedunculato versus apicem monophyllo, sepalis ovato-lanceolatis, petalis paulò longioribus unguiculatis lanceolatis acutis, labello lanceolato trilobo per axin tricarinato laciniâ intermediâ acuminatâ lateralibus nanis rotundatis.——*Vanikoro.*——The stem is described as two feet and more high; the leaves from three to four inches long, the raceme about a foot long, the flowers three inches in diameter. It is very near D. veratrifolium, but differs in having much shorter petals, and a very acute lip.

68. D. *antennatum* (Lindl. in London Journ. Bot. 2. 235); foliis lanceolatis carnosis obliquè emarginatis racemo oppositifolio brevioribus, sepalis acuminatis, petalis linearibus duplò longioribus reflexis, labello trilobo venis 5 elevatis rectis per axin; lobo medio ovato acuto plano 3-costato.——*New Guinea.*——This is a most curious thing, with flowers having their long horn-like petals directed backwards, and their sepals forwards. The petals are two inches long, and scarcely half a line wide.

The leaves are succulent, brittle, and veinless when fresh.

69. D. *undulatum* (R. Brown, Prodr. 332. L. no. 62. *D. discolor*, Lindl. in Bot. Reg. 1841. t. 52); foliis ovato-oblongis emarginatis, racemis longissimis, sepalis petalisque undulatis, labelli trilobi lobis acutis intermedio lanceolato, lineis quinque elevatis intermediâ apice fluxuosâ.——*Java, Tropical New Holland*.——A species with singular dingy yellow-brown flowers, of little beauty.

70? D. *affine* (*Onychium affine*, Decaisne herb. timor. 37); foliis lineari-oblongis acutiusculis coriaceis, pedunculo foliis triplo longiore oppositifolio? laxifloro, floribus spicatis; perianthio erecto, segmentis exterioribus lineari-lanceolatis acutis, interioribus subobovatis rotundatis mucronulatis; labelli unguiculati lobis 3, medio lineari-lanceolato, lateralibus subrotundis.——*Timor*.——Since M. Decaisne compares this with D. Mirbelianum, it probably belongs to the present section. The petals are said to be obovate and mucronate.

Next after these species must be placed those plants which Dr. Blume calls Pedilonum, of which one species only is known to me. In that I long since (Bot. Reg. 1839, misc. 169) stated that the structure is of the following singular nature:—In the first place the lateral sepals and the base of the lip are so united into a spur, that their separate nature is entirely concealed towards the point of the spur. In the next place the rostellum is a deep two-lobed lip curved down over the stigmatic surface. The pollen-masses are in two pairs, and deep purple; and, which is extremely curious, they lie upon a loose hard transverse crustaceous gland, which seems to replace the gland and caudicula of Vandeæ, and which projects beyond the anterior edge of the anther, resting upon the two-lobed rostellum. The anther-bed itself is deeply excavated, and three-lobed, the anther adhering to the back lobe which is the narrowest.

Should these characters, all or any of them, prove common to the plants now collected into this section, there will be no doubt about their forming a perfectly distinct genus. In the mean while I would not extend its definition beyond that of Dr. Blume.

Sect. IV. Pedilonum (Blume, Sect. 2.) *Stems erect. Racemes lateral. Lateral sepals united into a pouch, with which the base of the labellum is entirely coherent, without any articulation.* The flowers are said to be in all cases purplish.

71. D. *secundum* (Wallich. Cat. no. 1996. L. no. 29. Bot. Reg. t. 1291. *Pedilonum secundum*, Blume, p. 322); caulibus erectis, foliis oblongis apice obliquè retusis, racemis lateralibus terminalibus quesecundis, sepalis ovatis: lateralibus basi in cornu longum obtusum incurvum connatis, petalis supremo paulò minoribus, labello integerrimo acuto apice tumido.—— *Malacca, Java, Burma.*——Flowers very closely arranged in a one-sided spike, of various shades of purple. Pollen purple.
72. D. *erosum* (L. no. 52. *Pedilonum erosum*, Blume, p. 323); foliis subcoriaceis lanceolatis obtusis, racemis brevibus oppositifoliis subterminalibusve, sepalis obtusis, dorsali interioribus latiore, labelli limbo rotundato concavo eroso.——*Java.*——
73. D. *hymenophyllum* (L. no. 53. *Pedilonum undulatum*, Blume, p. 322. t. 36); foliis membranaceis lanceolatis inæquali-acuminatis, pedicellis brevibus, sepalo dorsali interioribus obtusis æquali, sacco calcariformi longissimo, limbo labelli undulato.——*Java.*——Sepals purplish. Labellum yellow.
74. D. *Kuhlii* (L. no. 58. *Pedilonum Kuhlii*, Blume, p. 321); foliis submembranaceis lanceolatis apice inæquali-obtusis, sepalo dorsali interioribus lato-lanceolatis latiori, labelli limbo spatulato acuto.——*Java.*——Flowers pale purplish.
75. D. *Hasseltii* (L. no. 59. *Pedilonum Hasseltii*, Blume, p. 321); foliis rigidis lanceolatis profundè obliquè emarginatis, sepalo dorsali interioribus lato-lanceolatis æquali, labelli limbo lineari-acuto.——*Java.*——Flowers deep purple.

We shall take an early opportunity of going on with the enumeration of this genus.

63. HYDROTÆNIA lobata.

Herbert in litt.

H. *lobata;* caule foliigero pedali vel ultra, foliis plicatis viridibus subpedalibus acutis $\frac{3}{4}$ unc. latis, spathâ multiflorâ biunciali vel ultra bivalvi, pedunculos rectos spatham superantes bracteis latis subæquantibus, germine brevi viridi, perianthii majori parte lutescentis laciniis $1\frac{1}{4}$ uncialibus fissurâ profundè lobatis bis (i. e. ungue cymbiformi et laminâ cymbiformi) lati-cymbiformibus, sepalorum unguibus semunciam latis et laminarum $\frac{3}{4}$ unc. latarum basi confertè brunneo-punctatis, petalorum angustiorum unguibus infernè sinu laterali utrinque angustatis brunneo-punctatis fasciâ transversâ mediâ aurantiacâ, summâ confertè purpureo-punctatâ globulis hyalinis pruinosâ, columnâ stamineâ $\frac{3}{8}$ unc. subcylindricâ luteo-virente, styli decidui lobis lutescentibus brevi parte integris superne bifidis (pessulâ mediâ nullâ) superne bifidis subtortuosè decurvis, antheris subrufescentibus dorso styli loborum parti integræ adpressis loculis despicientibus, capsulâ sulcatâ rotundatè trigonâ operculo obtuso.—*W. H.*

"This very pretty little plant, with speckled yellow flowers, was sent to Spofforth by J. Maclean, Esq. who found it on the hills above Lima. It has the habit and hardiness of Tigridia, and flowers freely at the same time in the border where the bulbs were set at the end of April, and seems likely to ripen its seed. It differs from Hydrotænia Meleagris and the described species of Beatonia in not having the little peg-like point in the fork of the style-lobes; it agrees with Hydrotænia in having the band across the lower part of the petals frosted with white globules, from which that plant received its name, and also in having the stem leaf-bearing and terminal as in Tigridia, instead of being extrafoliaceous, and accompanying or almost preceding the leaves as in the three described Beatonias; it seems, however, to me that Hydrotænia and Beatonia should be considered as sections of one genus, both having species with flowers pendulous and erect. Hydrotænia has the precedence in date, but the name by its meaning is limited, and cannot well embrace the Beatonias. Qu. Pardinia? § Hydrotænia; caule foliigero, petalorum unguibus globulis hyalinis fasciatis; § Beatonia; c. extrafoliaceo, unguibus non gl. h. fasciatis."—*W. Herbert.*

64. CALOSCORDUM.

Herbert.

Caloscordum; (vel, si mavis, Allium, § Caloscordum.) Tubus cum pedunculo articulatus subsexangularis inferne ampliatus germen breve com-

prehendens ore membranâ inconspicuâ staminiferâ munito, limbus tubum longè superans reflexè patens laciniis uninervibus, filamenta vix inferne dilatata petalina ore tubi sepalina parum infra inserta, antheræ parvulæ, stylus cylindricus brevis citò marcescens non deciduus, stigmata tria brevia tenuia patentia, capsula subrotunda, folia linearia, semina obovata, rugosa, nigra, hilo albido; odor alliaceus nullus.—*W. H.*

Sp. 1. C. *Neriniflorum;* bulbo parvulo, foliis dodrantalibus $\frac{1}{12}$ unciæ latis subglaucis crassis dorso rotundato superficie subcanaliculatè planâ, caule 7-unc. vel infra tenui, spathâ $\frac{3}{8}$ unc. univalvi latâ 1-2-bracteatâ, pedunculis subduodecim $2\frac{1}{2}$ unc. vel infra, perianthio vix semunciali roseo-purpurascente striâ mediâ obscuriore. *Habitat insulam Chusan dictam. Allium Chinense fl. dilutè violaceis proculdubio Caloscordi species.*

This plant was sent to Spofforth by J. Trevor Alcock, Esq. who received it from Chusan when that island was occupied by our troops, and it has since flowered three seasons. The foregoing description renders it almost necessary to advert to Prof. Kunth's Enumeratio, &c. art. Asphodeleæ. The name Pseudoscordum was proposed (Herbert Amaryllidaceæ, Prelim. Tr. p. 11 & Index) for the scentless race of Allium, as a genus distinguished from the rest; Prof. Kunth has thought fit to separate them by the name Nothoscordum, an alteration without cause which is not admissible; but in fact all these plants (as well as Hesperocordum, which does not appear very clearly separable from Allium senescens and some other species,) are perhaps to be considered rather as sections of Allium. The public, when told that Prof. Kunth's character of Pseudoscordum (named by him Nothoscordum) extends to twenty-six closely printed lines, may perhaps expect to find that its separation from Allium is strictly defined; but it will be found that it is not directly distinguished therefrom by him in any one respect, and even the important fact of the absence of the alliaceous scent is omitted; the plant being contrasted not with Allium, but with Dr. Lindley's Hesperocordum, which name he has also thought fit to alter without reason to Hesperoscordium. And here it is necessary to pause and enter a protest on behalf of the public against Prof. Kunth's work altogether, as compiled on such an injudicious plan, that as to generic characters it perplexes, instead of assisting, the inquirer. If the compiler and arranger of such a work has any useful and legitimate office, it is to simplify and render manifest the important points by which vegetables are connected with each other, and, subordinate to those demarcations, the lesser points by which they are distinguished. Prof. Kunth, on the con-

trary, has heaped together in each character every feature he could pick up whether trivial or important, without reference to the character of the plants most nearly allied, except occasionally in a subsidiary remark; and he absolutely confounds his reader, who has to compare these long characters with each other word by word to ascertain wherein they differ, and to his distress finds that they are not prepared in antithesis to each other, and that, although in most respects they may be substantially one, the same point is perhaps expressed in different words, while, concerning other points stated as to one genus, it does not appear how the fact stands with respect to others allied thereto. The further evil is, that as the Professor cannot have personally inspected such a multitude of features in every species of every genus, the facts asserted concerning the whole genus will be found in many respects incorrect; and, if they were correct, the reader has no means of judging which are the real points, a departure from which must cause a plant to be removed from the genus. Such a work therefore becomes a public encumbrance, and Professor Kunth is earnestly entreated in his further volumes to pursue the plain course of simplifying the generic characters, inserting no features which are not essential, and from which a departure would not be inconsistent with generic identity; and to place all minor points in the mass of subsidiary observations, amongst which any accidental inaccuracy will not disturb the basis of classification. Prof. Kunth, in attempting to distinguish Pseudoscordum from Hesperoscordum of Dr. Lindley, gives three points, spathe with only two valves, (though Dr. Lindley did not mention the absence of secondary valves or bractes as characteristic of Hesperoscordum), style persistent and not articulate, (a fact which seems to be incorrect, for I have Hesp. lacteum now before my eyes, perfecting its seed with the style firmly persistent on every capsule), and the want of three glands on the summit of the ovary; but he omits the main feature, viz. the membranaceous dilatation and connection of the filaments, and the articulation of the perianth with the footstalk, which is correct, though he puts a ? to it in the character, and adds to "stigma simplex" therein, that it is three-lobed in the figure, which is not the case, for it is merely triangular even in the magnified figure. The facts concerning Pseudoscordum as a section of Allium rather than a genus are, Folia linearia,

tubus turbinatus germine brevior, pedicello continuatus, laciniæ limbi subæquales tubo valde longiores, filamenta complanata apice filiformi, sepalina ori tubi petalina supra inserta, antheræ parvulæ, stigma trigonum, stylus persistens, germen obtusum breve trisulcum, odor alliaceus nullus. *Quoad, vidi, petala sepalis parum augustiora.* Caloscordum is therefore distinguished therefrom thus, — tubi germen comprehendentis formâ et articulo, filamentis profundiùs insertis non membranaceè dilatatis, stylo marcescente, limbi flexu. The subject cannot be dropped, without adverting to the next genera Triteleia and Brodiæa, concerning the first of which Professor Kunth says, that it differs in nothing but a trifid stigma and emarginate anthers from Pseudoscordum, and is rather a section thereof, entirely discarding the connection of the latter with Allium. Such trivial differences would not even constitute a section. Germen tenuiter productum basi longè stipitatâ, tubus longè infundibuliformis limbum valde longitudine superans, are amongst other differences which separate Triteleia from Allium and its subordinates. Concerning Brodiæa, which Prof. Kunth has confined to one species, grandiflora, elevating congesta into a genus which he names Dichelostemma, it must be remembered that both were figured and described by Salisbury in Paradisus Londinensis under the name Hookera, in compliment to the excellent artist of that work, and that Salisbury therein accused Sir J. E. Smith of having read a paper, wherein he named the plants Brodiæa without noticing his name and definition after it had been published. I do not know the correct facts, so as to decide whether the name Brodiæa did properly supersede Hookera, but if congesta is not of the same genus (as Prof. Kunth asserts) with grandiflora, on which Salisbury founded Hookera, that name should remain to the latter plant, and Smith's Brodiæa be confined to congesta. Professor Kunth's new character for congesta is contained in 21 lines, ending thus, *It is distinguished from Brodiæa by the habit and form of the sterile stamens.* Let us see what difference he states. None distinctly ! but on comparing the two descriptions we find that in the latter they are merely stated to be "*petaloid, much longer, lance-spathulate ;*" in the former they are stated to be also petaloid, and their length is not noticed, leaving no point but *lance-spathulate* for contrast with his description,

(as to congesta) "bifid, shortly cuspidate between lobes tending to the shape of a knife, having the appearance of a triple crown." The upshot of this is merely that the barren stamens in one are entire, and in the other split into two acute lobes at the end, with sometimes an irregular side-tooth, a very good specific feature. Who ever thought of separating Iris into genera on account of the indentures of the margin of its crests? I shall perhaps surprise the reader by stating, that, as far as I know, the asserted hypogynous scales in Brodiæa seem to be a fallacy, and that no such thing has existed in any of the flowers I have examined of either species. The perianth is thick, and Salisbury was deceived by remaining fragments thereof when he thought he had pulled it off, and others have, I suppose, taken them for granted. Therefore "squamæ hypogynæ nullæ" in other genera is superfluity. The supposed scales in Pyrolirion, which deceived Ruiz, were an articulate base to the alternate filaments. The difference stated by Kunth that B. congesta has the sepals, and grandiflora the petals, widest, is incorrect: the petals are widest in both. Prof. Endlicher places Triteleia and Hesperoscordum, with genera intervening between them, in Agapantheæ, and Allium in Asphodeleæ, dividing the original Asphodeleæ into suborders, which Prof. Kunth wisely, (because they are not correct) but, I believe, silently, rejects. On examination of the characters of those new suborders, (as well as of Aloineæ which intervenes) it will be found that there is no true distinction, the one suborder by alternatives admitted in its character comprising the points to which the other is limited, while other distinctions are incorrectly assumed. The only positive difference asserted is in the seeds, and that in some respects inaccurately, in others insignificantly. It is not a fact that his Agapantheæ have a black or pale membranaceous, and his Asphodeleæ a black crustaceous shell, nor are those distinctions true even as to genera. Some of the Cape Ornithogala have a less crustaceous shell, more compressed and less globose, than most other Ornithogala, or the genera Triteleia, Brodiæa, and above all Calliprora, in his Agapantheæ; and Scilla amœna in his Asphodeleæ has the shell rufous brown amongst its black-seeded congeners.

W. Herbert.

65. CESTRUM aurantiacum.

C. *aurantiacum;* glabrum, foliis petiolatis ovalibus acutis undulatis, floribus sessilibus spicatis, bracteis deciduis, calyce lucido 5-costato 5d-entato, corollâ glabrâ infundibulari limbo reflexo, filamentis basi pubescentibus denticulo auctis.

This beautiful shrub rivals Jacquinia aurantiaca in colour. It has smooth, wavy, light green leaves, and spikes of glowing orange-coloured flowers, a full inch long. The Horticultural Society raised it from Guatemala seeds communicated by G. U. Skinner, Esq., and it has lately flowered in the Chiswick Gardens. Its native place is said to be Chimalapa. It will form a most beautiful greenhouse shrub, and as its habit is good, while its flowers do not easily drop off, it will doubtless become a favourite with exhibitors.

66. MAXILLARIA scabrilinguis.

M. *scabrilinguis* (*Cyrtopera scabrilinguis*, Lindl. Gen. & Sp. no. 3.) ; pseudobulbis ovatis elongatis sulcatis, foliis basi angustatis scapo erecto multifloro longioribus, bracteis acutissimis ovario brevioribus, sepalis petalisque lineari-oblongis acutis lateralibus falcatis, labelli trilobi lobis lateralibus rotundatis intermedio ovato carnosissimo subtereti obtuso longiore: utrâque facie papillis densissimis versus callum oblongum tricostatum decrescentibus obsitâ, antherâ pubescente.

By an error, resulting from the examination of insufficient specimens, this plant, which is nearly allied to M. squalens, was referred to Cyrtopera in the "Genera and Species of Orchidaceous Plants." It is a native of the neighbourhood of Loxa, where Mr. Hartweg found it, and it has flowered recently in the Garden of the Horticultural Society. The flowers are dull purplish yellow. The labellum is remarkable for having all its end, inside and out, covered over with stiff short pale tubercules, terminated by a purple stain.

67. DICHÆA glauca.

Lindl. Gen. & Sp. Orch. no. 7.

This, the finest of its curious genus, and delightfully sweet-scented, has flowered with Messrs. Loddiges, who have received it from Oaxaca, where, as in other parts of Mexico, it is common. The leaves, which are placed in two rows, in

an imbricated manner, are quite blue with bloom on the underside. The flowers are pure white, except a spot of yellow at the very base of each division.

68. HABROTHAMNUS cyaneŭs.

H. *cyaneus;* incano-tomentosus, foliis ovato-oblongis undulatis acuminatis petiolatis, floribus aggregatis axillaribus pedunculatis, calyce ventricoso basi obtuso 5-dentato irregulari, corollâ cylindraceâ truncatâ 5-dentatâ margine albo pubescente, staminibus corollæ longitudine, filamentis infra medium villosis.

This promises to be a plant of some importance, notwithstanding a coarse grey downy foliage; for it produces in great profusion clusters of long flowers of a deep porcelain blue colour. The corolla has so abrupt a termination that it looks as if it had been eaten off by some insect. Mr. Hartweg found it forming a shrub four to six feet high, on the mountains of Yangana, near Loxa. It has lately flowered in the garden of the Horticultural Society.

69. GALEANDRA cristāta.

G. *cristata;* sepalis petalisque lineari-lanceolatis reflexis, labello convoluto margine crispo intus pubescente et basi bicarinato calcare acuminato horizontali, antheræ cristâ rhombeâ unguiculatâ.

A native of Cayenne, whence it was received by Messrs. Loddiges (Cat. 1308) in 1840. It has the habit of G. Devoniana, but the flowers are much smaller and paler, and the anther has a very singular crest, resembling a purple lozenge mounted on a white shaft.

70. BOLBOPHYLLUM recurvum.

Lindl. Gen. & Sp. Orch. p. 53. no. 30.

It is a very curious fact that this little plant, originally brought from Sierra Leone, should prove to be also an inhabitant of the New World. That it is so has been ascertained by Messrs. Loddiges, who received it from Guiana in 1839; the specimens that have just flowered having proved to be identical in all respects with the African plant. *Angræcum* or *Œceoclades maculatum* is another instance of the same kind.

71. CAMAROTIS obtūsa.

C. *obtusa;* labello calceiformi lobulo terminali truncato obsoletè tridentato inflexo intus appendice bilobâ canaliculatâ aucto, columnâ tortâ, rostello ungue labelli vix longiore.

I have only seen a few flowers of this, which was given by Mr. Bateman to Messrs. Loddiges. It is of Indian origin, and has dull dirty rose-coloured flowers, with a yellow lip. They are much larger than in C. purpurea, but by no means so handsome. The little lobe at the end of the lip is fleshy, slightly 3-lobed, and furnished with a singular 2-lobed channelled appendage. The column is twisted half round, as in Mormodes.

72. ARALIA macrophȳlla.

A. *macrophylla;* lævis, inermis, herbacea, foliis tripinnatis, foliolis petiolatis cordatis oblongis serratis acuminatis nunc trilobis, umbellis composito-racemosis.

This is an herbaceous plant from the North of India, looking like A. racemosa, but much larger in all its parts. The flowers, which are greenish-yellow, have been produced in the garden of the Horticultural Society, where the plant has been raised from seeds presented by the East India Company.

73. BOLBOPHȲLLUM pileātum.

B. *pileatum;* . . . . . floribus solitariis glabris, sepalis oblongis obtusis lateralibus convexis longioribus, petalis conformibus duplò angustioribus, labello linguiformi obtuso lævi pone basin bijugato inter juga subaspera nectare lucido obducto, columnâ tereti muticâ, antherâ conicâ cum dente postico columnæ subulato articulatâ, polliniis 4 inæqualibus.

A native of Sincapore, and No. 178 of Messrs. Loddiges' last catalogue, by whom it was received from Sincapore in the year 1840. It has a large yellow-ochre-coloured flower, with a nearly flat moveable labellum stained with two purple ridges near the base, between which is a little bright yellow valley, secreting a mucilaginous matter along its whole length. The anther is conical, like an old-fashioned high-crowned hat.

74. PILUMNA laxa.

Among the curious plants that have flowered this year with Mr. Barker is the present, which is said to have been pur-

chased at Mr. Skinner's sale, and which, if there is no mistake in the matter, must have come from Guatemala. It is, however, so exactly like specimens found in Popayan by Mr. Hartweg, that we cannot help suspecting some error. Its general appearance may be understood by its having been mistaken for a Trichopilia. Its flowers are produced in loose erect racemes, out of broad obtuse short membranous spotted bracts. The stalks and ovary are an inch and half long; the latter with three very stout and strong ribs. The sepals and petals are a pale watery green, erect, linear-lanceolate, equal, faintly tinged with purple. The lip is cream-colour, rolled round the column at the base, to which it also is united at the lower end. The column has a singular fringed hood, overlying the anther, and a nearly vertical stigma, closed in by fleshy inflected cheeks. In these circumstances it differs from Aspasia, to which the genus is nearly akin. Mr. Hartweg found in the same country another species, of which and the present the following are the technical characters.

PILUMNA. *Ovarium* tricostatum. *Sepala* et *petala* æqualia patula obliquè inserta. *Labellum* basi columnæ adnatum, subintegrum, unguiculatum, convolutum, inappendiculatum. *Columna* clavata, teres, clinandrio cucullo dentato membranaceo circumdato; buccis duabus carnosis semiclausum. *Stigma* verticale. *Pollinia* 2, posticè fissa, caudiculæ brevi et glandulæ ovatæ adnata.——Herbæ *epiphytæ*, pseudobulbis *vaginatis*, foliis *coriaceis*, pedunculis *radicalibus*.——Genus Aspasiæ proximum, clinandrio cucullato, columnâ tereti, nec non stigmate verticali nec faciali diversum.

Sp. 1. Pilumna *laxa*; folio lineari-oblongo, racemo laxo multifloro breviore, bracteis laxis cucullatis obtusis, sepalis petalisque lineari-lanceolatis, labello oblongo indiviso rotundato medio constricto per axin unilamellato. ——*In the woods of Timbio near Popayan.*

Sp. 2. Pilumna *fragrans*; folio lato oblongo, racemo 2-3-floro breviore, bracteis lanceolatis erectis obtusis, sepalis petalisque oblongo-lanceolatis acuminatis, labello oblongo apiculato subtrilobo lævi.——*Near the city of Popayan.* ——Flowers large, white, sweet-scented, with an orange-coloured spot on the lip, according to Mr. Hartweg.

75. EPIDENDRUM purum.

E. *purum* (§ Euepidendrum); caule elongato tereti, foliis ensiformibus obtusis, floribus paniculatis ramis (3) racemosis gracilibus foliis paulo erectioribus, sepalis angustè lanceolatis, petalis linearibus, labelli tripartiti basi 5-costati laciniis ovatis acutis.

A Caraccas plant, sent by Linden to Mr. Rucker, with whom it flowered in the beginning of September. The leaves are not half an inch wide, and six or eight inches long. The flowers are in a thin panicled raceme, of a light pale green colour, and about the size of those of E. *nutans*.

76. ONCIDIUM spilopterum.

O. *spilopterum* (Euoncidia, Pentapetala, micropetala, pandurata); pseudobulbis compressis oblongis diphyllis, foliis erectis oblongis scapo erecto racemoso brevioribus, sepalis ovatis acutis liberis, petalis conformibus latioribus, labello maximo trilobo subrotundo emarginato apiculato lobis lateralibus nanis obtusis, cristâ anticè trilobâ jugis quibusdam verrucisque utrinque pone basin quasi 5-lobâ, columnæ alis semicordatis crenulatis maculatis.

A handsome Oncidium, with quite a peculiar habit, imported from Brazil by Messrs. Loddiges. Its flowers are large and yellow, with small brownish purple sepals and petals; the base of the labellum is the same colour; while the wings of the column are clear yellow, spotted with crimson. The flowers grow in an erect raceme, longer than the leaves. It may be stationed between O. Lanceanum and Carthaginense.

77. HABENARIA candida.

H. *candida;* caule diphyllo, foliis undulatis acuminatis, spicâ pauciflorâ (4-5), bracteis acuminatis herbaceis ovario brevioribus, sepalis ovatis acutis subæqualibus dorsali horizontali, petalis indivisis galeatis obtusis, labello integerrimo ensiformi, calcare pendulo ovario duplò longiore apice bilobo.

The flowers of this rare Orchidaceous plant are scentless and snow-white, without the least trace or stain, except on the spur, which is pale green. They are of the size of those in Cynorchis fastigiata, of which the plant has the habit. Messrs. Loddiges received it from Sierra Leone, and it is No. 1901 of their last catalogue.

L.—November, 1844.

78. WARREA bidentāta.

W. *bidentata;* bracteis pedicello 4-plo brevioribus, labelli apice bidentati venis valdè convexis flabellatis lamellis altis intermediâ duplò majore.

At first sight we took this for Warrea tricolor. Its lip is however regular, slit at the end, the veins are much more convex, and the central plates thinner and deeper than in that species. The bracts too are not half the length. Sent from the Caraccas to Sigismund Rucker, Esq. with whom it flowered in the beginning of September.

79. ERIA vestīta.

(Dendrobium vestitum, *Wall. Cat. no. 2005. Lindl. gen. & sp. no. 33.*)

E. caulibus pendulis villis deciduis densè vestitis, foliis coriaceis lanceolatis apice obliquis obtusis integris suprà sparsè subtùs densissimè villosis, racemis elongatis multifloris flexuosis bracteis ovatis coriaceis persistentibus floribus capsulisque villosis, sepalis lanceolatis lateralibus in cornu obtuso porrecto connatis mucronulatis, petalis conformibus obtusis brevioribus glabris, labelli trilobi laciniis lateralibus obtusis intermediâ subrotundâ crispâ emarginatâ pilosâ per axin lineâ elevatâ interruptâ velutinâ dentibusque paucis auctâ, lamellis 7 quarum duæ lanceolatæ sinus fere attingentes et quinque parvæ dentiformes.

This singular plant, with the structure of a woolly Eria, and the habit of a pendulous Dendrobium, is a native of the Indian Archipelago. Dr. Wallich's collectors had it from Sincapore, and Mr. Cuming sent it from Manilla (?) to Messrs. Loddiges. It is singularly clothed with a thick reddish brown hairiness. The flowers are reddish brown externally, white inside, and hang down in pendulous spikes, which are longer than the leaves.

80. AMARYLLIS Slateriāna.

(*Herbert MSS.* Amaryllis. Banksiana, *supra* 1842. *t.* 11.)

In the opinion of the Dean of Manchester this is not the plant to which he gave the name of Banksiana in his work on Amaryllidaceæ (*p.* 279. t. 32. f. 2.), and he proposes that it should bear the name of James Henry Slater, Esq. of Newick Park, near Uckfield, to whom we are indebted for our knowledge of it, and whose great success in cultivating

Cape bulbs has conduced so much to our knowledge of these beautiful things. We are most happy to give effect to Dr. Herbert's recommendation, for certainly, be its name what it may, it is one of the finest species we yet possess. "The flowers are very much smaller than those of A. Banksiana," but we are not sufficiently acquainted with the genus to be able to draw up a satisfactory specific character.

81. NAPOLEŌNA imperiālis.

Palisot de Beauvois Fl. d'Oware et de Benin, 2. 33.

Among the most remarkable plants that have hitherto been discovered ranks this rare species, of which living plants have been lately brought from Sierra Leone by Mr. Whitfield. That indefatigable collector having given me a dried specimen with a seed, and the Earl of Derby having most kindly placed in my hands a bottle containing the flowers in different states, an opportunity has arisen for clearing up the history of one of the most obscure genera in the records of Systematical Botany.

Napoleona was so named by the late M. Palisot de Beauvois, who first found it in the kingdom of Oware, in Western Africa, where it was common, especially in the woods behind the King of Oware's residence. From fragments preserved by that naturalist a good figure, so far as general appearance goes, was published; but with extremely inaccurate and incomplete details. The flowers were represented as being sky blue, with a sort of 5-rayed star of a pink colour in the middle, and upon the whole the account which he gave of it was so unsatisfactory, that the very existence of the plant has been doubted by some people. In what De Beauvois was right and in what wrong, the following description will shew.

It forms a *bush* about as large as a Camellia, according to Mr. Whitfield. The *wood* is soft, whitish, with large medullary rays, an abundance of dotted vessels, intermingled with brittle acicular tubes of woody tissue, very like what is found in the germinating radicle of a Mangrove. No hairs are to be found on any part of the plant.

The *leaves* are alternate, leathery, between three and six inches long, obovate-lanceolate, tapering to an obtuse point,

and narrowed at the base into a thick channelled petiole about $\frac{1}{4}$ of an inch long; there is no trace of *stipules.*

The *flowers* grow in threes, sessile in the axil of the leaves, and are surrounded at their base by several round imbricated scales, as in Camellias; when expanded they measure two inches in diameter; Mr. Whitfield states that when decaying they assume a bluish tint, which has probably led to De Beauvois' error in representing them as almost wholly blue in their perfect state.

The *calyx* is a thick leathery cup, divided into five ovate segments, having a perfectly valvate æstivation.

Within this is placed the *corolla*, which consists of three distinct rings, each of which is monopetalous. *The first ring* is apricot colour, divided into five lobes, each of which has seven stiff ribs, between which the texture is membranous; the lobes have seven broad teeth, corresponding with the points of the ribs, and much curled and crumpled; by means of the ribs and intervening membrane, this part of the corolla is strongly plaited both before and after expansion; when fully blown it turns quite back over the calyx, so as to hide it completely. *The second ring* is very small and thin; it is in fact a narrow membrane, stationed at the foot of the first ring, and cut into an indefinite number of fine narrow sharp-pointed segments; this ring was overlooked by De Beauvois. *The third ring* is rich crimson, according to Mr. Whitfield, membranous, but erect, and assuming the form of a cup, whose edge is cut into many fine segments, turned downwards, so as not to be at all conspicuous. De Beauvois makes this a flat star of many points, which is altogether an error.

The *stamens* are in number 20, standing erect in the form of another cup, of a rich apricot colour, and unequally united at their base; they have linear-lanceolate filaments, which are much thinner next the anthers, and are there turned inwards; the anther itself is oblong, 2-celled, and erect; it is difficult to conceive how De Beauvois could have made out of this five petal-like filaments, each of which bears two anthers.

Next the stamens comes a deep fleshy *cup* or *disk*, standing as high as the stigma, and having ten sides, of which the narrowest are alternate with the lobes of the stigma, and two-ribbed in the inside.

The *ovary* is buried beneath the mass formed by the base

of the corolla, stamens and disk, so that unless you cut into the very base of the ovary the cells may be overlooked; it has five cells, in each of which two ovules hang from the top of an axile placenta, which is so attached to the partitions that there is a clear opening from the hollow centre of the style, over the ovules, into the cells of the ovary; the *ovules* are oblong, with a depression in the middle on each side, and a foramen next the base, the nucleus being curved like a horse-shoe, so that its base and apex are both nearly in contact; the *style* is 5-angled, or rather 5-winged, and terminated by a table-shaped *stigma*, with five sides, five rays, and a small elevation at each angle, which elevations are perhaps the true stigmatic surfaces.

The *fruit*, according to De Beauvois, is a soft spherical berry, surmounted by the calyx, one-celled, many-seeded, the seeds lying in a fleshy matter; this is evidently incorrect. Mr. Whitfield found it to be as large as a Pomegranate, and very like one, containing a mucilaginous pulp which is eatable, and a rind so full of tannin, that the natives make an ink from it.

The *seeds* (of which I have seen one, dead and without its skin) are large amygdaloid bodies, kidney-shaped, and as much as $1\frac{1}{4}$ inch long, with the taste (in that state) of a Spanish chesnut, but with a bitter aftertaste; at their contraction the plano-convex cotyledons hold together by an axis whose radicle and plumule are both immersed in the substance of the cotyledons.

Such being the true structure of this plant, its generic character may be stated thus.

NAPOLEONA.

(*Palisot de Beauvois fl. d' Oware et de Benin, vol.* 2. *p.* 29. *t.* 78.)

Calyx adhærens, coriaceus, 5-fidus, æstivatione valvatus. *Corolla* e verticillis tribus plicatis monopetalis constans, quorum *exterior* maximus, 5-lobus reflexus, laciniis 7-costatis dentibusque totidem crispis acuminatis; *secundus* ascendens, annuliformis, altè multipartitus, laciniis linearibus acuminatis crispis; *tertius* erectus, cyathiformis, plicatus, margine multifido inflexo. *Stamina* 20, corollæ interioris basi inserta, serie simplici, basi irregulariter

monadelpha; *filamentis* lineari-lanceolatis, membranaceis, apice tenuiori incurvis; *antheris* deflexis, oblongis, bilocularibus, basi fixis. *Discus* cyathiformis, altus, carnosus, 10-angularis, subplicatus. *Ovarium* adhærens, carnosum, loculis 5, in imâ basi pedunculo proximâ sepultis; *ovulis* 20, campylotropis, superpositis, per paria apici placentæ axilis semiliberæ affixis. *Stylus* pentagonus, angulis subalatis; *stigma* disciforme, pentagonum, 5-radiatum, intra angulos glandulam verruciformem (an verum stigma) gerens. *Fructus* (Mali Punici magnitudine, pulpâ mucosâ farctus, cortice austerâ *Dom Whitfield*). *Semina* fabæ magnitudine, reniformia, exalbuminosa; *cotyledonibus* plano-convexis, radiculâ immersâ.

In the total absence of all correct information as to the real structure of this curious genus, Botanists have been unable to arrive at any satisfactory conclusion as to its affinities. All that they have been able to settle is its not belonging to any known natural order.

Palisot de Beauvois stated (1807) that in the opinion of Jussieu, it constituted a new order between *Cucurbitaceæ* and *Passifloraceæ;* a view that was probably taken in consequence of the double-ringed corolla, which is analogous to the coronet of the Passion-flowers, and the plaited corolla with an inferior ovary, which brings to mind the flowers of the Gourd Tribe.

Desfontaines, on the contrary (1820), refers it, and another genus which he calls Asteranthus, without any doubt, to *Symplocaceæ*, because of its monopetalous perigynous corolla, its stamens inserted in the base of the corolla, its oblong two-celled anthers, single style, inferior ovary, axillary solitary flowers, shrubby stem, and alternate leaves.

Him follows Dr. Robert Brown (1822), who formed it and Asteranthus into an order called *Belvisieæ*, without, however, attempting to settle its position in the natural system. He objected to approximating it to Symplocaceæ, doubted its affinity to Passifloraceæ, and compared its structure with that of Rafflesia.

Latterly no one seems to have attempted to suggest anything new as to its relationship. Endlicher puts it next Symplocaceæ. Meisner next Passifloraceæ, adding to what had been previously known of it, that its seeds are arillate, a

mistake (?) that probably originated in De Beauvois' description of them "Semina in pulpâ carnosâ nidulantia." Finally, I myself, feeling that these could not be its true affinities, placed it in the Campanul alliance, with marks of great doubt.

It is obvious, from the foregoing description, that Napoleona has nothing to do with any of the orders to which it has been referred. From Cucurbitaceæ it differs utterly in its hermaphrodite flowers, axile placentation, highly developed corolla, and whole habit; it has in fact no resemblance to that order. Passifloraceæ seem at first sight to claim a much nearer relationship; because of the triple-rowed corolla of Napoleona, which much resembles the coronet of a Passion-flower; but there the resemblance ceases. The tendrils, parietal placentæ, free ovary, distinct styles, polypetalous corolla, imbricated calyx of Passifloraceæ, are all most essentially at variance with the genus. Symplocaceæ were a far better guess, for the monopetalous corolla, indefinite epipetalous stamens, axile placentæ, adherent calyx, and definite seeds of Napoleona find there a parallel; but the ovary of that genus is wholly adherent, with a great epigynous disk, the calyx is valvate, and the seeds have no albumen, to say nothing of the lacerated condition of the corolla, which is not to be wholly disregarded in a consideration of this kind.

To me it appears that the true affinity is in the neighbourhood of the Mangroves (Rhizophoraceæ); for the following reasons. The ovary is in both inferior, few-seeded, with axile placentæ; both have a coriaceous valvate calyx; both have large amygdaloid seeds without albumen. The placenta of Kandelia is almost the same as that of Napoleona, and in the former genus the petals are broken up into numerous fringes quite analogous to those of the genus in question. To this may be added the great resemblance that exists between the wood of Napoleona and of young Rhizophora, in consequence of both consisting in part of slender acicular tubes, which give the wood, when broken across, the appearance of containing slender bristles. Finally, the ribbing, which is so conspicuous in the outer corolla of Napoleona, is repeated in the calyx of Bruguiera gymnorhiza. It is true that the one genus is monopetalous and the other polypetalous, but I cannot attribute much importance to that character in a case where the stamens adhere so slightly to the corolla.

While, however, there is this reason to believe that Rhizo-

phoraceæ will prove most nearly related to Napoleona, the affinity of the genus to some Myrtaceæ, is not to be overlooked; as, for example, to Verticordias, in which there is the same tendency to a multiplication of the series of the corolla, to Careyas, whose fruit has a very similar structure, and to Barringtonias to which Napoleona is very similar in foliage; but these affinities are less striking than that of the Mangrove tribe. They shew, however, pretty clearly that Belvisiaceæ, for so it is most convenient to call the order of which Napoleona is the most conspicuous member, belongs to the great Myrtal alliance.

82. The Section of EPIDENDRUM named Spathium.

This is one of the divisions of Epidendrum proposed in *Hooker's Journal of Botany, vol.* 3. *p.* 81, and is distinguished by its stem being slender leafy and erect, its flowers placed on a long peduncle, which proceeds from a spathe consisting of one or more equitant bracts, and by its labellum being wholly attached to the corolla. It differs from § Aulizeum in its stem being covered with leaves and not pseudobulbous, with two or three leaves at the end only. It is also very near § Amphiglottium, from which it is distinguished by the branches not being excessively lengthened and covered with close pressed scales below the flowers. In their stead there is usually a long sheathing spathe, like that of Cattleya, out of which the inflorescence proceeds: occasionally there are several of such spathes. E. (Amphiglottium) cornutum is one of the connecting links between the two sections.

§ SPATHIUM.

Spathium, *Lindl. in Hooker's Journal of Botany*, 3.81.(1841).

* *Lip undivided.*

1. E. *grandiflorum* (Lindl. in Hook. Journ. 3. 86); foliis distichis ensiformibus obtusis, racemo denso terminali basi flexuoso e spathâ duplici orto, sepalo dorsali ovali lateralibus duplo latioribus dimidiatis, petalis linearibus, labello subrotundo cordato emarginato margine postico crispo venis baseos 2 elevatis.——*Peru.*——A plant with the inflorescence of E. variegatum. Flowers coriaceous,

about twice as large as in that species.—(Not in cultivation.)

2. E. *Scutella*; foliis coriaceis ovato-lanceolatis distichis, spathâ brevi latâ acinaciformi pedunculo æquali, racemo umbellato paucifloro, sepalis petalisque lineari-lanceolatis, labello oblongo cordato plano ecalloso.——*In the woods of Guayan, on the western slope of Pichincha,* rare. (Hartweg.)——Flowers greenish yellow, very large. Lip full an inch long. Spathe very broad, about half an inch long.

3. E. *mancum*; foliis 3-4 oblongis obtusis carnosis obliquè emarginatis supremo spathæ longitudine, racemo stricto multifloro foliis multò longiore, floribus carnosis, sepalis subrotundo-oblongis obtusissimis, petalis spathulatis apice concavis, labello minimo postico carnoso concavo indiviso callo magno margine membranaceo in medio.——*On the Cordillera, near Loxa, flowering in July.* (Hartweg.)——Flowers rather small, orange and yellow.

4. E. *adenoglossum* (Lindl. in Hook. Journ. 3. 86); foliis carnosis lineari-oblongis obtusis, racemo elongato simplici terminali e spathâ ancipiti pedunculo breviore orto, sepalis ovatis reticulatis, petalis linearibus 3-veniis acutis, labello lineari basi callis 3 instructo.——*Peru.*——Flowers small, in a thin spike.—(Not in cultivation.)

5. E. *ventricosum* (Lindl. in Hook. Journ. 3. 86); foliis lineari-lanceolatis acutis, racemis angustis multifloris e spathâ lineari ortis, floribus membranaceis, sepalis subæqualibus oblongis acutis, petalis filiformibus, columnâ ventricosâ, labello ovato cordato acutissimo basi bicalloso.——*Peru.*——A slender plant, with the stem about six inches up to the commencement of the spathe. Racemes from 4—5 inches long, including the spathe which covers the whole peduncle. Flowers purple, small, membranous.—(Not in cultivation.)

** *Lip more or less three-lobed.*

6. E. *brachyglossum*; foliis lineari-lanceolatis apice rotundatis obliquis, racemo elongato simplici terminali nutante e spathâ ancipiti pedunculo breviore orto, floribus carnosis, sepalis obovatis concavis, petalis linearibus 3-veniis acutis, labello brevi trilobo: laciniis lateralibus nanis intermediâ ovatâ: callis duobus lamellæformibus tuberculoque inter-

jecto instructo.——*On the western face of the Andes, near Nanegal.* (Hartweg.)——A slender creeping rooted plant, with small flowers and the appearance of E. adenoglossum, but the leaves are narrower and the lip has a different form.

7. E. *leucochilum* (Klotzsch in Gartenzeit. 1843. p. 145); foliis distichis coriaceis patenti-recurvis obtusis emarginatis subtus costato-carinatis, racemo simplici terminali 6-floro e spathâ ancipiti pedunculo breviore orto floribus magnis arcuato-pedicellatis odoratis perigonii foliolis linearibus acutis versus basin attenuatis margine recurvis interioribus patenti-arcuatis exterioribus deflexis, labelli trilobi lobis lateralibus brevioribus integerrimis oblique orbicularibus intermedio elongato acuminato venis baseos 3 elevatis instructo, columna elongata candida inferne ad apicem biloba.——*Caraccas.*——Found by Mr. Edward Otto, growing on the stems of trees at the height of 4500 feet above the sea. It is said to prefer a cool house, and to have been shewn at the Botanical exhibition at Prague by Professor Tausch. It is fully described by Messrs. Klotzsch and Edward Otto in the above-mentioned place. The flowers are yellowish green with a white lip.

8. E. *armeniacum* (Lindl. in Bot. Reg. t. 1867. *Encyclia macrostachya*, Pöppig. & Endl. n. g. et sp. 2. t. 114); caulibus teretibus erectis indivisis, foliis lanceolatis coriaceis acutis subplicatis, racemis pedunculatis cylindraceis nutantibus, sepalis patulis ovatis acutis, petalis setaceis, labelli subcucullati laciniis lateralibus rotundatis intermediâ ovatâ acuminatâ : callo magno oblongo in discum. ——*Brazil and Peru.*——Flowers small, apricot coloured, in a slender drooping spike.

9. E. *nutans* (Swartz Prodr. 121. Fl. Ind. Occ. 1. 1499. Willd. no. 13. Hooker Exot. Bot. 1. t. 50 optimè. Lindl. gen. et sp. orch. no. 44); foliis oblongis distichis undulatis obtusis, paniculâ nutante multiflorâ, sepalis oblongo-lanceolatis petalisque lineari-lanceolatis obtusis patentibus, labelli trilobi lobis lateralibus cordatis ovatis: intermedio transverso truncato apiculato basi bicalloso venis tribus elevatis.——*West Indies, and Brazil.*——This well known plant has been found by Dr. Von Martius on the Corcovado in Brazil, in rocky places. Its green flowers are sweet-scented in an evening. Many varieties are found in our gardens.

10. E. *refractum* (Lindl. in Ann. Nat. Hist. xii.); folio carnoso ovato-oblongo coriaceo obtuso, pedunculo elongato spathis plurimis falcatis obtusis distinctis vaginato, racemo brevi 4—5-floro cernuo, floribus carnosis, sepalis oblongis acutis dorsali refracto, petalis ovalibus subconformibus, labello subrotundo cordato trilobo basi biverrucoso per medium calloso, lacinia intermedia abbreviata truncata. ——*Caraccas.*——A very singular plant, with six or seven herbaceous, equitant, distinct falcate spathes on a peduncle about nine inches long. The sepals are about three-quarters of an inch long.

11. E. *geminiflorum* (Humb. et Kunth. Nov. Gen. et Sp. Pl. 1. 354. Lindl. Gen. et Sp. no. 26); caule repente ramoso, foliis oblongis obtusis coriaceis, pedunculis subbifloris, sepalis lanceolatis acuminatis patulis margine revolutis, petalis conformibus planis, labello ovato cordato subcucullato trilobo: lobis lateralibus rotundatis ab intermedio sinu brevi sejunctis.——*Popayan.*——Stem with dwarf, stiff, erect side branches. Flowers middle-sized, very fleshy, with extremely sharp pointed divisions. (Not in cultivation.)

*** *Lip three-parted.*

12. E. *longiflorum* (Humb. et Kunth. Nov. Gen. et Sp. Pl. 1. 354. Lindl. Gen. et Sp. no. 45); foliis oblongis obtusis striatis coriaceis, racemi nutantis pedunculo spathâ maximâ breviore, sepalis petalisque lanceolato-linearibus acuminatis margine revolutis, labelli tripartiti laciniis lateralibus ovatis obliquè truncatis revolutis: intermediâ lanceolatâ acuminatâ margine revolutâ duplò longiore. ——*New Granada and Popayan.*——A most noble plant, with its yellow flowers more than four inches across. Some of the leaves are about a foot long. (Not in cultivation.)

13. E. *spathaceum* (Lindl. in Hook. Journ. 3. 85); foliis . . . ., racemis alternis densissimis pendulis spathis foliaceis falcatis conduplicatis vix longioribus, sepalis rigidis striatis acutis, petalis filiformibus, labelli trilobi laciniis lateralibus subintegris intermediâ ovali obtusâ basi bilamellatâ brevioribus.——*Peru. Obtained by Mr. Mathews out of the herbarium of Ruiz and Pavon, preserved at Lima.*—— The masses of inflorescence of this plant are upwards of

one and a half foot long, and consist of dense racemes proceeding from the axil of falcate spathes, so as to have a great resemblance to that of some Palm. Perhaps this ought to be rather referred to Amphiglottium; but its large sheathing spathes, full six inches long, under each branch of the inflorescence, seem to justify its being placed in this section. (Not in cultivation.)

14. E. *excisum;* foliis latis oblongis apice rotundatis excisis, spathâ latâ coriaceâ pedunculo longiore, floribus laxè paniculatis, petalis filiformibus, labello hastato basi bicalloso laciniis lateralibus cordatis crenulatis intermediâ lineari divergenti bilobâ.——*On the ascent to Sotara, near the village of Totoro, in Popayan.* (Hartweg.)——This is very much like E. floribundum, of which it has quite the habit, but it has a great sheathing spathe.—(In cultivation?)

15. E. *cylindraceum;* caule ramoso, ramulis basi vaginatis glabris, foliis cuique ramulo 2 ovato-oblongis, pedunculo spathis 2-3 equitantibus elongatis herbaceis vestito, racemo elongato cylindraceo, sepalis obovatis acutis dorso scabris, petalis linearibus lævibus, labelli 3-partiti basi tricallosi laciniis lateralibus angustis antrorsum falcatis postice serrulatis intermediâ lineari basi latiore apice in lobos 2 subrotundos serrulatos divisâ.——*In the woods of Pitayo, in the province of Popayan, at the height of 10,500 feet.* (Hartweg.)——Flowers small, in a very dense cylindrical raceme, about six inches long. (Not in cultivation?)

16. E. *Trinitatis;* caulibus foliosis ancipitibus, foliis lineari-lanceolatis glaucescentibus apice obtusis obliquè emarginatis, racemo terminali nutante pedunculato basi vaginis herbaceis equitantibus imbricato, sepalis petalisque lineari-lanceolatis, petalis piliformibus, labelli lobis lateralibus concavis denticulatis intermedio lineari-lanceolato acuminato basi 3-calloso.——*Trinidad.*——Flowers small, in a long raceme, pale greenish yellow, with a deep apricot-yellow lip. Not very ornamental, but pretty.

* * * * *Lip six-parted.*

17. E. *raniferum* (L. no. 64. Bot. Reg. 1842. t. 42.); foliis distichis lanceolatis, racemis terminalibus lateralibusque

divaricatis multifloris, sepalis ligulatis convexis obtusis petalisque linearibus cuneatis mucronulatis patentissimis, labelli sexlobi basi 3-callosi laciniis integerrimis dentatisque: posticis rotundatis—intermediis linearibus—anticis linearibus obtusis retrosum falcatis.——*Mexico and British Guayana* (Schomburgk, no. 424.)——Although a good deal like E. nutans, this species is really very distinct, and indeed far handsomer; in consequence of the rich purplish brown spots with which the sepals and petals are profusely decorated. Like so many of the order this species varies a good deal in the amount of toothing observable in its lip. In the original specimens the divisions were perfectly entire; in other plants they are all toothed, or both the one and the other.

83. CALIPHRURĬA Hartwegiāna.

Amaryllidaceæ; § Pancratiformes. Caliphruria; *Herbert.* Germen breve trisulcè obovatum; tubus angustè subinfundibuliformis subsulcatus rectus ferè; limbus regularis sepalis parum latioribus reflexè stellatus; filamenta laciniarum basi inserta setâ utrinque subparallelâ munita; antheræ subsagittatæ dorso infra medium supra lobos affixæ rectæ apice parum curvato introrsum versæ; stylus rectus stigmate subrecurvè trilobo lobo inferiore parum protruso; ovarium loculis 2-3-spermis; ovula subquadratè oblonga in loculis transversè posita.—*W. H.*

Caliphruria Hartwegiana; bulbo ovato, foliis petiolatis subdepressis perennibus petiolo subbiunciali superficie planâ dorso rotundato laminâ sexunciali vel ultra acuminatè ovali interdum subplicatè canaliculatâ saturatè viridi, scapo vix compressè subtereti pedali colore glauco florido superfuso, spathâ acutâ bivalvi intus bracteatâ pedunculos parum curvatos æquante, umbellâ 7-florâ, germine subdeclinato, tubo semunciali viridi, limbo semunciali albo stylum album æquante, filamentis cum setis lateralibus albis, antheris luteis.—*W. H.*

This plant, found in New Granada near Guaduas by Mr. Hartweg, is evidently akin to Eurycles of Amboyna and Australia, forming a link between that genus and Griffinia. It is not improbable, that the white bristle on each side the filament may be found obsolete in other species, for the genus Stenomesson shews great diversity of such appendages, even in plants which are evidently varieties of one species, and differ in no other respect. This plant, except in the inflorescence, has much the appearance of an Eucrosia, but with the blade of the leaf more horizontally depressed. I apprehend that it will have fleshy seeds.—*W. H.*

84. HABRANTHUS nobilis.

H. nobilis (Herbert) ; foliis subcrassis subobtusis ultra $\frac{1}{4}$ unc. latis viridibus, scapo subcompresso subpedali viridi, spathâ biunciali valvis acuminatis marcescentibus, pedunculis sex inæqualibus $\frac{1}{2}$-$2\frac{1}{2}$-unc. viridibus, germine $\frac{1}{4}$ unc. viridi, tubo brevi (vix ultra $\frac{1}{8}$ unc.) virescente membranâ fauciali minutè barbatâ, limbo saturatè rubro $2\frac{1}{4}$ unc. vel infra costâ extus virescente intus albescente, filamento sepalino superiore elongato, stylo superne rubro inferne pallido antheras luteas superante limbo semunciam breviore.

This fine species flowered out of doors in front of the pine-stove of the Rev. F. Belfield, jun. at Primley Hill, near Torquay, in October, having been cultivated there a few years. Though of much stronger habit, it should perhaps be considered a variety of H. kermesinus.—*W. H.*

85. TRIMEZIA Meridensis.

Trimezia ; *Salisbury,* absque charactere. Perianthium valde dispar basi laciniarum cohærens, ungues sepalini lati crateriformes petalini angustiores incurvi, laminæ sepalinæ semipatentes petalinæ recurvæ, filamenta filiformia spiræ modo torta disci papillis inserta. antheræ styli lobis firmè adhærentes partibiles sublateraliter fissæ connectivo lineari, stylus inferne linearis superne trilobus lobis laminæformibus cucullatis stigmatibus mollibus bilobis lobis bifariis ; semina glabra, badia, subrotunda, testâ durâ.—*W. H.*

T. Meridensis (Herbert); perianthio lætè luteo fasciâ subfuscâ transversâ leviter pubescente ad laminarum sepalinarum basim maculis quinque contiguis constante, maculâ magnâ unguis sepalini medio tribusque parvulis ad utrumque latus tribusque ad basim mediæ magnitudinis, maculâ rotundâ ad lam. petalinarum basim leviter pubescente sex parvulis in ungue mediâ biseriatim dispositis, ad basim unâ. Cætera ut in T. Martinicensi. *Ex montibus Meridæ prope Maracaibo.*—W. H.

This plant, handsomer than the old species, long called Iris Martinicensis, was imported by Mr. Harris, having been found on the snowy mountains of Merida by his collector Mr. Mackenzie.—*W. H.*

86. BELLEVALIA Syriăca.

B. Syriaca (Herbert) ; foliis 12-14 glaucis vix semunciam latis subpedalibus canaliculatis subacutis margine sub lente scabro, scapo 5-10-unciali superne purpurascente, pedunculis suberectè patentibus sæpissime tribus ferè pariter insertis, inferis $\frac{1}{4}$ unc. superioribus gradatim brevioribus, bracteis brevissimis bilobis, tubo $\frac{1}{4}$ unc. pallidè cœrulescente, limbo pari

subalbescente apice subrufescente, filamentis albis complanato-subulatis, antheris fusco-purpureis, seminibus rotundis.—*W. H.*

Bulbs of this plant, received by the Hon. W. Fox Strangways from Aleppo, (whether found near Aleppo or Damascus is not ascertained) were sent four years ago to Spofforth. They remained sulky two years; one sprouted and flowered in the third and fourth year, and another in the fourth, the rest having perished. They are hardy, and have ripened seed. Allied to B. Romana and dubia.—*W. H.*

87. GLADIŎLUS festīvus.

G. festivus (Herbert); caule præcoce sesquipedali bracteato decemfloro, floribus confertis (i. e. semunciam distantibus) secundis bracteis subæqualibus $\frac{5}{8}$ unc. longis, perianthio sesquiunciali, tubo bracteas æquante inferne tenuiter cylindrico albo, limbo pallidè roseo, petalo superiore laciniis cæteris valde majore concavo incurvato plus semunc. lato, sepalis superioribus $\frac{1}{4}$ unc. latis compressis, labio inferiore superius fere æquante laciniis obtusis inferne pallidis mediâ costâ luteâ, petalis inferioribus inferne et mediâ parte a lineâ luteâ marginem tenus albo-lutescentibus; foliis hysteranthiis lævibus angustis acutis.—*W. H.*

This Cape species has flowered in the Royal Botanic Garden, Kew.

88. PLANTIA flāva.

Plantia; *Herbert.* Cormus tunicatus; folium sublineare amplexicaule; caulis multiflorus bracteis foliiformibus superne spicatè breviter ramosus; involucrum bivalve pedunculos et germen oblongum gracile includens; perianthium non tubatum sexfidum laciniis distinctis germine articulatis regularibus; filamentorum columna monadelpha inferne ampliata stylum amplexa; antheræ breves dorsi imæ parti affixæ subsessiles stigmatum lobos interpositæ; stylus tenuis superne trilobus erectus; stigmata biloba lobis brevibus acutis depressè divaricantibus; capsula obovata triloc. triv. trisulc. Semina angulata testâ brunneâ.—*W. H.*

P. flava (Herbert); folio unico angusto elongato, ramis brevissimis, involucris circiter 4-floris vel ultra valvâ exteriore et interiore acuminatis ultra uncialibus pedunculos et germen gracile oblongum acumine superantibus, perianthio pallidè flavo stellâ saturatiore laciniis subconniventibus petalis minoribus inferne magis angustatis, genitalibus flavis.—*W. H.*

This pretty and florid little plant was first introduced into this country as a Moræa by Synott; and has been since raised at Spofforth from Cape seed under the name of Sisyrinchium. It is named after Mr. Plant, a zealous and industrious experimental cultivator and nurseryman at Cheadle, to whom we are indebted for some curious hybrids in this order, and who

now believes that he has succeeded in crossing Lilium lanceæfolium with Chalcedonicum. It forms a genus between Sisyrinchium and Homeria —*W. H.*

89. BIDWELLIA glaucescens.

Bidwellia; *Herbert.* [Vel, si mavis, Asphodeli sectio, Bidwellia.] Ab Asphodelo et Asphodeline filamentis superne clavatis cum acumine secernenda, cætera ferè conformis.—*W. H.*

B. glaucescens (Herbert); foliis angustis glaucis crassis linearibus superne planis dorso rotundato, caule inferne simplici medio 2-4-divaricatè furcato pedunculis brevibus bracteatis subalternatim dispositis duobus terminalibus, germine brevi bracteam subæquante, perianthio regulari sub sole patente subtortiliter deciduo basi brevi sexsulcatâ ovario adnatâ pedunculo continuatâ laciniis $\frac{5}{16}$ unc. uninervibus albis costâ et intus lineâ subrubrâ striatis petalis latioribus, filamentis basi dilatatâ pubescente concavè ovarium tegente mediâ parte filiformibus superne clavatis cum acumine, antheris brevibus versatilibus introrsis dorso supra lobos affixis inferne bilobis latioribus superne acutis, stylo tenui stigmate lobis tribus brevibus rotundis fimbriatis, capsulâ subrotundâ utrinque attenuatâ trivalvi valvis medio septiferis loculis dispermis dehiscente, seminibus testâ subfuscâ dorso rotundo transversè tricostato angulata loculi dimidio conformibus (i. e. corporis obovati quarta pars) sulcis 2 dorsalibus 3-4 lateralibus transversis hilo subalbido inconspicuo a tertiâ parte anguli interioris pendulis. Obs. *Genus* occidentale Americanum, mihi Trihesperus, simili ratione ob filamenta triformia inferne filiformia superne clavata cum acumine,.(seu sectio, si mavis,) a Phalangio seu Antherico secernendum est. Spec. 1. Glaucus, Bot. Mag. 3610, et alter apud me ex Limæ viciniâ in colle Chorillos dicto v. foliis non glaucis. 2. Latifolius, Humb. et K. 1. 276.—*W. H.*

This plant was introduced, with others, into Europe by Mr. Bidwell of Sydney. It is a native of an elevated tract of table-land called New England, on the south-eastern mountains of the Australian continent.—*W. H.*

90. LEOCHĪLUS herbacĕus.

L. *herbaceus;* labello obovato emarginato apice denticulato medio convexo lævi basi excavato villoso.

An inconspicuous plant from La Guayra, imported by George Wailes, Esq., of Newcastle. Its sepals and petals are green, with a single red stripe along the middle. The lip is white slightly tinged with green, and irregularly banded with pale purple. It differs from L. oncidioides in the form and surface of the lip. I believe, too, that the flowers are in pairs; but I have only seen fragments.

91. LEOCHĪLUS sanguinolentus.

L. *sanguinolentus;* labello pandurato sepalis multò majore apice bilobo: laciniis subrotundis imbricatis superficie planâ lævi supra basin 3-tuberculatâ basi ipsâ villosâ, columnæ alis abbreviatis, clinandrii dorso elevato, antherâ parvâ.

This also comes from La Guayra, whence Mr. Barker received it. Although the flowers are small they are very beautiful, having a deep crimson lip richly studded with clear purple spots. In the smallness of its anthers, the extension of the anther-bed behind into an elevated rim, and in the shortness of the column wings, it is somewhat different from the rest of the genus. I have only seen a couple of flowers.

92. EPIDENDRUM ceratistes.

E. *ceratistes* (Encyclium III.*); pseudobulbis conicis 2-3-phyllis, foliis ensiformibus strictis scapo duplo brevioribus, paniculâ longâ cernuâ racemiformi ramulis lævibus divaricatis, sepalis petalisque obovatis acutissimis subconformibus (herbaceis), labelli trilobi lobis lateralibus erectis obtusis ovatis apice recurvis intermedio subrotundo unguiculato acuminato crispo striato, ungue medio depresso versus basin 4-costato, columnâ bicornutâ, antherâ tricostatâ.

A native of the Spanish Main, whence it was brought by Mr. Hartweg to the Horticultural Society, with whom it flowered in October last. Its panicle is very narrow, and about three feet long; the leaves resemble those of E. virgatum, but are not so glaucous; the flowers are extremely similar to those of E. selligerum, but they are a clear green with a whitish lip, and the column has two horn-like arms. It is rather sweet-scented.

93. PHYCELLA obtūsa.

P. *obtusa;* folio synanthio sesquipedali horizontali oblongo in petiolum longè angustato (4 poll. lato), scapo stricto tereti glauco subspirali, umbellâ 6-florâ pedunculis tubo brevioribus, tubo cylindraceo basi abruptè obtuso sexcostato (carneo) apice (viridi) patulo, staminibus stylo multò brevioribus.

This species is so very like P. chloracra, that it might be mistaken for it; but it has stamens considerably shorter than the style, and the tube, instead of being green at the

bottom, where it gradually tapers into the ovary, is wholly flesh colour, and ends above the ovary in six abrupt prominent ribs. Mr. Hartweg sent it to the Horticultural Society from Peru.

INDEX

TO THE

BOTANICAL REGISTER,

FOR THE YEARS 1838 TO 1844.

PART I.—SPECIES DESCRIBED.

		pl.	misc.
Abies Kutrow	1841	..	24
Abutilon striatum	1839	.	53
——— ———	1841	..	16
——— vitifolium	1840	..	114
——— ———	1844	57	..
Acacia cultriformis	1838	..	62
——— cyanophylla	1839	..	64
——— cuneata	1839	..	74
——— platyptera	1841	..	10
——— biflora	1841	..	30
——— urophylla	1841	..	64
——— spectabilis	1843	46	53
Acanthophippium striatum	1838	..	68
Achimenes grandiflora	1842	..	59
——— hirsuta	1843	55	103
——— longiflora	1842	19	..
——— pedunculata	1842	31	..
——— rosea	1841	65	..
Acanthostachys strobilacea	1841	..	36
Acianthera punctata	1843	..	10
Aconitum ovatum	1840	..	118
Acriopsis picta	1843	..	105
Aerides Brookeii	1841	..	116
——— crispum	1842	55	..
——— virens	1843	..	48
——— ———	1844	41	..
Æonium cruentum	1841	61	..
——— Youngianum	1844	35	..
Æschynanthus maculatus	1841	28	..
——— grandiflorus	1841	49	..
Æsculus Ohiotensis	1838	51	..
Ætheria occulta	1838	..	179
Aganisia pulchella	1839	..	65
———	1840	32	..
Agapanthus umbellatus var. maximus	1843	7	..
Agave saponaria	1838	..	141
——— ———	1839	55	..
Allium cœruleum	1840	51	..
Alnus jorullensis	1840	..	52
Alona cœlestis	1844	46	..
Alstrœmeria Ligtu	1839	13	..
——— magnifica	1843	..	94
——— Chorillensis	1843	..	95
——— ———	1844	..	68
——— lineatiflora	1843	58	..
Amaryllis Banksiana	1842	11	16
——— Slateriana	1844	..	80
Ammoniacum	1839	..	105
Ampelygonum chinense	1838	..	118

		pl.	misc.
Amphicome arguta	1838	19	..
Amygdalus incana	1839	58	..
Anagallis alternifolia	1840	..	144
Andromeda phillyredefolia	1844	..	33
——— ———	1844	36	..
Anemone rivularis	1842	8	..
——— Govaniana	1844	65	59
——— longiscapa	1842	8	..
Angræcum armeniacum	1839	..	109
——— Ashantense	1843	..	75
——— bilobum	1840	..	151
——— ———	1841	35	..
——— gladiifolium	1840	68	..
——— brevifolium	1840	68	..
——— ornithorhynchum	1840	68	..
——— pellucidum	1844	2	..
——— polystachyum	1840	68	..
——— tenue	1840	68	..
——— vesicatum	1843	..	9
Anguloa Clowesii	1844	63	29
——— uniflora	1844	60	..
Ania bicornis	1842	..	31
——— ———	1844	8	..
Anigozanthus flavida	1838	37	..
——— var. bicolor	1838	64	..
Anizanth, Plant's	1842	53	..
Aotus lanigera	1841	..	88
Aplotaxis albescens	1839	..	129
Aporum Leonis	1840	..	126
——— sinuatum	1841	..	3
——— cuspidatum	1841	..	7
Aquilegia glauca	1840	46	..
——— fragrans	1840	..	140
——— pubiflora	1840	..	141
Aralia macrophylla	1844	..	72
Arbutus laurifolia	1839	67	..
Arctostaphylos nitida	1840	..	69
——— pungens	1844	17	..
Argyreia festiva	1841	..	127
Arisæma macrospatha	1840	..	54
Aristolochia Gigas	1842	60	53
Armeria fasciculata	1841	21	17
Arpophyllum spicatum	1839	..	16
Arundina bambusæfolia	1841	..	5
——— densa	1842	38	26
Asafœtida	1839	..	106
Asagræa officinalis	1839	33	..
Asparagus lucidus	1844	..	36
Aspasia epidendroides	1840	..	92
——— ———	1842	..	18

o

		pl.	misc.
Aspasia lunata	1844	..	49
Asteracantha longifolia	1839	..	117
Asterotrichion sidoides	1841	..	35
Aster cabulicus	1843	..	89
Astragalus strobiliferus	1840	..	71
Astyria rosea	1844	49	31
Azalea altaclerensis	1842	27	..
—— double red Indian	1842	56	..
Azara integrifolia	1840	..	10
Babiana ringens	1838	..	19
Babingtonia Camphorosmæ	1842	10	..
Bæckea Camphorosmæ	1841	..	140
Banisteria tenuis	1838	..	131
Barbacenia squamata	1843	..	96
Barkeria elegans	1840	..	57
—— Lindleyana	1842	..	5
—— spectabilis	1842	..	45
Barnadesia rosea	1843	29	..
Batatas betacea	1839	..	152
—— ——	1840	56	..
—— bonariensis	1838	..	99
Bauhinia corymbosa	1839	47	..
Beatonia purpurea	1842	..	84
—— atrata	1843	..	114
—— curvata	1843	..	115
Becium bicolor	1842	..	44
—— ——	1843	15	..
Begonia crassicaulis	1842	44	21
—— diversifolia	1840	..	44
—— punctata	1841	..	34
—— incana	1841	..	73
—— papillosa	1841	..	74
—— vitifolia	1842	..	20
Berberis empetrifolia	1840	27	..
—— trifoliata	1841	..	149
—— tenuifolia	1838	..	121
—— ——	1844	26	..
—— coriaria	1841	46	..
—— umbellata	1842	..	42
—— ——	1844	44	..
—— pallida	1843	..	28
—— ——	1844	16	..
Bessera elegans	1839	34	..
Betula Bhojpattra	1840	..	169
Bidwellia glaucescens	1844	..	89
Bifrenaria longicornis	1838	..	177
—— inodora	1843	..	63
Bignonia picta	1842	45	..
—— Carolinæ	1844	54	..
—— Tweediana	1840	45	..
Billardiera daphnoides	1840	..	38
Billevalia Syriaca	1844	..	86
Blandfordia marginata	1842	..	93
Bletia havanensis	1838	..	35
—— Shepherdii	1838	..	73
—— secunda	1840	..	120
Bolbophyllum cupreum	1838	..	183
—— clandestinum	1841	..	166
—— calamarium	1843	..	109
—— Cheiri	1844	..	56
—— adenopetalum	1842	..	95
—— flavidum	1840	..	195
—— imbricatum	1841	..	65
—— fuscum	1839	..	5
—— limbatum	1840	..	171
—— macranthum	1844	13	..
—— recurvum	1844	..	70
—— pileatum	1844	..	73

		pl.	misc.
Bolbophyllum sordidum	1840	..	217
—— umbellatum	1838	..	102
—— setigerum	1838	..	24
Bomarea acutifolia	1842	..	91
—— Macleanica	1842	..	85
—— subglobosa	1842	..	86
—— punctata	1842	..	87
—— uncifolia	1842	..	88
—— Turneriana	1842	..	89
—— variabilis	1842	..	90
Boronia crenulata	1838	12	..
—— triphylla	1841	47	..
—— mollis	1841	47	..
—— anethifolia	1841	47	..
—— falcifolia	1841	47	..
—— dichotoma	1841	47	..
—— ovata	1841	47	..
Bossiæa disticha	1841	55	67
—— paucifolia	1841	..	108
—— ——	1843	63	50
—— eriocarpa	1843	..	51
Bouvardia splendens	1840	37	..
Brachycome iberidifolia	1840	..	148
—— ——	1841	9	..
Brasavola angustata	1838	..	67
—— Martiana	1839	5	..
—— glauca	1839	..	67
—— ——	1840	44	89
—— grandiflora	1839	..	14
—— venosa	1840	39	24
Brassia cochleata	1840	..	37
—— brachiata	1843	..	2
—— Lawrenceana	1841	18	6
—— Lanceana	1844	..	13
—— macrostachya	1838	..	31
—— verrucosa	1840	..	66
Bravoa geminiflora	1838	..	98
Bromelia discolor	1838	..	85
Bromheadia palustris	1841	..	184
—— ——	1844	18	..
Brongniartia sericea	1843	..	93
Broughtonia aurea	1840	..	22
Brownæa grandiceps	1841	30	..
Bryobium pubescens	1838	..	145
Buddlea Lindleyana	1844	..	25
Bulbine suavis	1838	..	78
Burlingtonia maculata	1839	44	..
—— rigida	1841	..	11
Calandrinia discolor	1839	4	..
Calanthe discolor	1840	55	..
—— ——	1838	..	32
—— furcata	1838	..	34
—— Masuca	1842	..	52
—— ——	1844	37	..
—— bicolor	1838	..	38
—— veratrifolia	1839	..	39
Calathea villosa	1843	..	87
Calectasia cyanea	1841	..	13
Caliphruria Herbertiana	1844	..	83
Callipsyche eucrosioides	1842	..	49
Callistemon microstachyum	1838	7	..
Caloscordum Neriniflorum	1844	..	64
Calostemma carneum	1840	26	..
—— luteum	1840	19	..
Calystegia sepium	1838	..	104
Calydorea	1843	..	138
Camarotis obtusa	1844	..	71
Campanula grandis	1842	..	41

		pl.	misc.
Campanula Lœflingii	1842	..	64
——— ———	1843	19	..
Candollea tetrandra	1842	..	39
——— ———	1843	50	..
Carpesium pubescens	1838	..	123
Catasetum cornutum	1840	..	182
——— ———	1841	5	..
——— callosum	1840	..	183
——— ———	1841	5	..
——— deltoideum	1840	..	157
——— maculatum	1840	62	..
——— ———	1840	..	99
——— Milleri	1838	..	149
——— Naso	1843	..	111
——— ochraceum	1844	..	55
——— poriferum	1838	..	164
——— abruptum	1842	..	24
——— atratum	1838	63	114
——— globiflorum	1842	..	48
——— proboscideum	1839	..	140
——— ———	1841	5	..
——— planiceps	1843	9	..
——— longifolium	1839	..	154
——— laminatum	1841	5	..
——— lanciferum	1841	5	..
——— discolor	1841	..	12
——— fuliginosum	1841	..	168
——— roseo-album	1840	..	135
——— spinosum	1840	..	136
——— Russellianum	1840	..	19
——— saccatum	1840	..	179
——— Trulla	1840	..	176
——— ———	1841	34	..
——— tridentatum	1844	..	40
——— Wailesii	1843	..	1
Catha paniculata	1843	..	45
Cattleya Aclandiæ	1840	48	..
——— Arembergii	1843	..	123
——— bicolor	1838	..	148
——— granulosa	1842	1	..
——— Perrinii	1838	2	..
——— pumila	1844	5	..
——— Mossiæ	1840	58	..
——— Skinneri	1840	..	83
——— superba	1839	..	47
Ceanothus pallidus	1840	20	..
——— divaricatus	1843	..	55
——— Thyrsiflorus	1844	38	..
Centaurea pulchra	1839	..	84
——— ———	1840	28	..
Centranthera punctata	1843	..	11
Centradenia rosea	1843	20	..
Centropogon cordifolius	1841	..	192
Cereus leucanthus	1840	13	..
——— crenatus	1844	31	..
——— speciosissimus, var.	1842	49	..
——— biformis	1843	..	66
Cestrum aurantiacum	1844	..	65
Chænanthe Barkeri	1838	..	60
Cheiranthus ochroleucus	1840	..	29
Cheirostylis parvifolia	1839	..	20
Chirita sinensis	1844	59	..
Chorozema cordatum	1838	10	..
——— spectabile	1841	45	66
——— varium	1839	49	63
Chysis lævis	1840	..	130
——— bractescens	1840	..	131
——— ———	1841	23	..

		pl.	misc.
Cirrhea saccata	1836	..	121
Cirrhopetalum cornutum	1838	..	138
——— chinense	1842	..	29
——— ———	1843	..	49
——— cæpitosum	1838	..	53
——— Macræi	1841	..	105
——— Medusæ	1842	12	..
——— maculosum	1841	..	173
——— Thouarsii	1838	11	..
——— nutans	1839	..	118
——— Wallichii	1839	..	119
——— fimbriatum	1839	..	120
——— picturatum	1840	..	106
——— auratum	1840	..	107
——— ———	1843	..	61
——— vaginatum	1840	..	173
——— ———	1842	12	..
Citrus deliciosa	1841	..	44
Cleisostoma latifolium	1840	..	127
——— dealbatum	1844	..	5
——— decipiens	1844	..	16
——— maculosum	1840	..	67
——— tridentatum	1838	..	46
——— roseum	1838	..	150
Clematis florida, var. bicolor	1838	25	..
——— lathyrifolia	1839	61	..
——— montana	1840	53	..
Cleome lutea	1840	..	117
——— ———	1841	67	..
Clethra mexicana	1840	..	51
——— quercifolia	1842	23	..
Clerodendron fragans	1838	41	..
——— infortunatum	1844	19	..
——— splendens	1841	..	177
——— squamatum	1842	7	..
Clianthus carneus	1841	51	9
Clianthus humilis	1839	..	141
Clowesia rosea	1843	39	39
Cobæa stipularis	1840	..	50
——— ———	1841	25	..
Coburgia humilis	1842	46	..
——— miniata	1844	..	22
——— versicolor	1842	66	..
Codonopsis lurida	1839	..	126
Cœlia Bauerana	1842	36	..
——— macrostachya	1842	36	..
Cœlogyne fimbriata	1838	..	172
——— fuscescens	1844	..	1
——— prolifera	1838	..	75
——— testacea	1842	..	34
——— Wallichiana	1838	..	167
——— ———	1840	24	..
——— ovalis	1838	..	171
——— Cumingii	1840	..	178
——— ———	1840	29	..
——— coronaria	1841	..	178
——— flaccida	1841	31	..
——— cristata	1841	57	54
——— elata	1839	..	151
——— oculata	1839	..	25
Colea floribunda	1841	19	..
Colletia serratifolia	1844	..	46
Columnea Schiedeana	1841	60	..
Comarostaphylis arbutoides	1843	30	..
Comparettia coccinea	1838	68	..
——— rosea	1840	..	186
Commelina orchioides	1838	..	96
Conostylis juncea	1839	..	73

		pl.	misc.
Convolvulus floridus	1840	..	199
—— verrucipes	1841	..	45
—— scoparius	1841	43	152
Corethrostylis bracteata	1844	47	..
Cornus grandis	1840	..	59
Corvisartia indica	1842	..	61
Coryanthes speciosa alba	1840	..	75
Corycium orobanchoides	1838	45	..
Cosmus scabiosoides	1838	15	..
Cotoneaster denticulata	1840	..	58
Cotyledon cristatum	1839	..	134
Cratægus crenulata	1844	52	..
Crinum brachynema	1842	..	28
—— variabile var. roseum	1844	9	..
Crocorum synopsis	1843	..	132
Crocus Cartwrightianus	1843	..	131
—— ——	1844	..	8
—— nivigena	1843	..	130
—— landerianus	1843	..	129
—— lagenæflorus Hæmicus	1843	..	128
—— nubigena	1843	..	127
—— medius	1844	..	37
—— insularis	1843	21	..
—— pulchellus	1843	..	126
—— speciosus	1839	40	..
—— vernus	1844	..	7
Crotalaria undulata	1840	..	32
Crucianella stylosa	1838	55	..
Cryptandra suavis	1844	56	27
Cryptochilus sanguineus	1838	23	..
Cryptosanus scriptus	1843	..	122
Cupressus thurifera	1839	..	101
Cyclamen neapolitanum	1838	49	..
Cyclosia maculata	1839	..	7
Cyclogyne canescens	1840	..	68
Cycnoches ventricosum	1840	..	98
—— ventricosum & Egertonianum	1843	..	117
—— maculatum	1840	..	8
—— pentadactylon	1843	22	26
Cymbidium iridifolium	1839	..	37
—— bicolor	1839	..	69
—— madidum	1840	..	6
—— pendulum	1840	25	..
—— var. brevilabre	1842	..	67
—— ——	1844	22	..
—— chloranthum	1843	..	108
—— pubescens	1840	..	177
—— ——	1841	38	..
—— virescens	1838	..	59
Cynoglossum anchusoides	1842	14	..
—— cœlestinum	1839	36	..
—— glochidiatum	1839	..	128
—— ——	1841	15	..
—— grandiflorum	1838	..	127
—— longiflorum	1840	50	..
Cypella plumbea	1838	..	130
Cypripedium barbatum	1841	..	110
—— ——	1842	17	..
Cyrtochilum mystacinum	1838	..	38
—— ——	1839	62	..
—— stellatum	1839	..	54
—— graminifolium	1841	..	180
—— filipes	1841	50	72
—— maculatum	1838	44	39
—— ——	1840	..	86
Cyrtochilum maculatum	1841	..	87
—— ——	1841	..	14
Cyrtopodium Andersonii	1841	8	49
—— cristatum	1841	8	..
—— Wilmorei	1841	8	..
Cytisus Weldenii	1839	..	122
—— ——	1843	40	..
—— ——	1842	..	38
Dahlia glabrata	1840	29	..
Daphne australis	1838	56	..
Daubenya fulva	1839	53	..
Delphinium laxiflorum	1838	30	..
—— intermedium, var. sapphirinum	1838	52	..
—— intermedium, var. palmatifidum	1838	38	..
—— decorum	1840	64	..
Dendrobium aciculare	1840	..	188
—— aduncum	1842	..	62
—— aqueum	1843	54	6
—— calcaratum	1840	..	219
—— cucumerinum	1842	..	63
—— ——	1843	37	..
—— chlorops	1844	..	54
—— denudans	1838	..	156
—— candidum	1838	..	54
—— discolor	1841	52	50
—— ——	1842	..	6
—— secundum	1841	..	169
—— junceum	1842	..	11
—— formosum	1838	..	86
—— formosum	1839	64	..
—— stuposum	1838	..	94
—— scopa	1842	..	55
—— sulcatum	1838	65	..
—— sanguinolentum	1842	..	73
—— ——	1843	6	..
—— bicameratum	1839	..	85*
—— compressum	1842	..	76
—— ——	1844	53	..
—— Heyneanum	1839	..	41
—— macrophyllum	1839	..	56
—— ——	1842	..	94
—— Paxtoni	1839	..	56
—— aurem, pallidum	1839	20	..
—— crumenatum	1839	22	..
—— Jenkinsii	1839	37	..
—— linguæforme	1839	..	26
—— teretifolium	1839	..	29
—— tetragonum	1839	..	30
—— ——	1841	..	8
—— tortile	1839	..	31
—— pygmæum	1839	..	32
—— Cambridgeanum	1841	..	171
—— acerosum	1841	..	86
—— Kingianum	1844	..	18
—— moschatum	1841	..	15
—— calamiforme	1841	..	26
—— criniferum	1844	..	45
—— excisum	1841	..	165
—— elongatum	1839	..	33
—— ——	1841	..	53
—— Ruckeri	1843	60	38
—— pugioniforme	1839	..	34
—— planibulbe	1843	..	70
—— crassulæfolium	1839	..	53

		pl.	misc.
Dendrobium complanatum	1839	..	36
——— herbaceum	1840	..	153
——— longicolle	1840	..	172
——— macrophyllum	1844	..	62
——— plicatile	1840	..	7
——— revolutum	1840	..	110
——— rhombeum	1843	17	..
——— teres	1840	..	111
——— taurinum	1843	28	..
——— gemellum	1840	..	192
Dendrochilum filiforme	1840	..	113
——— abbreviatum	1844	..	34
——— glumaceum	1841	..	58
——— latifolium	1843	..	74
Deutzia corymbosa	1839	..	49
——— ———	1840	5	..
Dianthus Bisignani	1838	29	..
——— ferrugineus	1839	15	..
Dichæa ochracea	1839	..	71
——— glauca	1844	..	67
Dicrypta discolor	1839	..	145
Dienia cordata	1838	..	134
Dinema paleaceum	1840	..	112
Dion edule	1843	..	82
Dipladenia crassinoda	1844	64	..
Diplolæna Dampieri	1841	64	..
Diplopeltis Hugelii	1839	69	70
Drymonia bicolor	1838	4	..
——— punctata	1842	..	77
Duvaua longifolia	1843	59	..
Dyckia altissima	1841	..	183
Earina suaveolens	1843	..	88
Echeandia terniflora	1839	..	144
Echeveria acutifolia	1842	29	..
——— secunda	1838	..	112
——— ———	1840	57	..
——— lurida	1841	1	..
——— rosea	1842	22	..
Echinacea Dicksoni	1838	27	..
Echinocactus Ottonis	1838	42	..
——— Eyriesii, var. glaucus	1838	31	..
——— Scopa	1839	24	..
Echthronema	1843	..	136
Echites atropurpurea	1843	27	..
Echium petræum	1843	26	..
Elæagnus parvifolia	1843	51	..
Eleutherine anamola	1843	57	..
Elisena longipetala	1838	..	79
Encyclia, note upon	1839	..	13
Entelea palmata	1838	..	126
Epacris impressa, var.	1839	19	..
Epidendrum pictum	1838	..	43
——— cubense	1843	..	24
——— pachyanthum	1838	..	42
——— papillosum	1838	..	8
——— collare	1843	..	85
——— Pastoris	1838	..	3
——— polyanthum	1842	..	2
——— Schomburgkii	1838	53	16
——— ceratistes	1844	..	92
——— cinnabarinum	1842	25	..
——— smaragdinum	1838	..	44
——— calocheilum	1841	..	181
——— latilabrum	1841	..	163
——— ———	1842	..	70
——— bisetum	1841	..	148

		pl.	misc.
Epidendrum Grahami	1841	..	145
——— tripunctatum	1841	..	143
——— auritum	1843	..	4
——— articulatum	1841	..	127
——— pterocarpum	1841	..	128
——— ———	1844	34	..
——— radiatum	1841	..	123
——— ———	1844	45	..
——— raniferum	1841	..	122
——— ———	1842	42	..
——— virgatum	1841	..	189
——— gladiatum	1841	..	20
——— glutinosum	1843	..	124
——— viviparum	1841	..	27
——— miserum	1841	..	62
——— lamellatum	1843	..	60
——— limbatum	1843	..	104
——— leiobulbon	1841	..	63
——— microphyllum	1841	..	71
——— hastatum	1841	..	90
——— aciculare	1841	..	98
——— lacertinum	1841	..	109
——— leucochilum	1843	..	120
——— phœniceum	1841	..	120
——— selligerum	1838	..	66
——— tibicinis	1838	..	12
——— tessellatum	1838	..	9
——— tridactylum	1838	..	81
——— varicosum	1838	..	37
——— verrucosum	1844	51	..
——— vesicatum	1838	..	89
——— aurantiacum	1838	..	11
——— ———	1840	..	82
——— aspersum	1838	..	36
——— altissimum	1838	..	61
——— Boothianum	1838	..	7
——— cucullatum	1838	..	47
——— chloranthum	1838	..	28
——— cauliflorum	1838	..	82
——— calamarium	1838	..	163
——— dichotomum	1838	..	146
——— diotum	1843	..	97
——— dichromum	1843	..	119
——— equitans	1838	..	76
——— fucatum	1838	..	17
——— ionosmum	1838	..	87
——— longicolle	1838	..	49
——— lacerum	1838	..	18
——— lividum	1838	..	91
——— ochraceum	1838	26	15
——— Ovulum	1843	..	71
——— variegatum	1839	11	..
——— glumaceum	1839	..	50
——— ———	1840	6	..
——— grandiflorum	1844	..	82
——— Candollei	1839	..	77
——— inversum	1839	..	135
——— uniflorum	1839	..	13
——— Skinneri	1840	..	81
——— ———	1844	..	24
——— incumbens	1840	..	84
——— machrochilum	1840	..	85
——— Stamfordianum	1840	..	88
——— rhizophorum	1840	..	91
——— ———	1838	..	10
——— rubrocinctum	1843	..	20
——— Hanburii	1844	..	60

		pl.	misc.
Epidendrum arbuscula	1843	..	54
—— aromaticum	1840	..	93
—— bractescens	1840	..	122
—— densiflorum	1840	..	134
—— purum	1844	..	75
—— crispatum	1840	..	35
—— lancifolium	1840	..	152
—— ——	1842	50	..
—— falcatum	1840	..	20
—— Parkinsonianum	1840	..	20
—— glaucum	1840	..	56
—— vitellinum	1840	..	35
—— stenopetalum	1840	..	49
—— Trinitatis	1840	..	128
—— viscidum	1840	..	190
Epimedium violaceum	1840	43	..
Epiphora pubescens	1840	..	143
Eria clavicaulis	1840	..	220
—— cochleata	1844	..	23
—— acutifolia	1842	..	32
—— bipunctata	1841	..	179
—— ferruginea	1839	35	..
—— bractescens	1841	..	46
—— ——	1844	29	..
—— longilabris	1841	..	69
—— armeniaca	1841	42	70
—— pulchella	1841	..	106
—— profusa	1842	..	3
—— floribunda	1843	..	56
—— ——	1844	20	..
—— multiflora	1843	..	72
—— polyura	1841	..	114
—— ——	1842	32	..
—— mucronata	1842	..	27
—— convallarioides	1841	62	121
—— paniculata	1842	..	33
—— pannea	1842	..	79
—— nutans	1840	..	196
—— planicaulis	1840	..	4
—— pumila	1838	..	147
—— velutina	1840	..	209
—— vestita	1844	..	79
Erica chloroloma	1838	17	..
Erigeron squarrosum	1841	..	92
Eriphilema	1843	..	137
Erysimum Perofskianum	1839	..	79
Erythrochiton Brasiliensis	1843	47	..
Eucalyptus calophylla	1841	..	157
Eulophia squalida	1841	..	164
Euonymus japonicus	1844	6	..
Euphorbia rigida	1838	43	..
—— veneta	1838	6	..
Eurybia glutinosa	1839	..	112
—— chrysotricha	1841	..	47
Euthales macrophylla	1840	..	119
—— ——	1841	3	..
Eysenhardtia amorphoides	1839	..	55
Fabiana imbricata	1839	59	..
Fernandezia lunifera	1839	..	147
Friesia peduncularis	1843	..	108
Fritillaria Kotschyana	1844	..	52
Fuchsia fulgens	1838	1	..
—— cylindracea	1838	66	97
—— cordifolia	1841	70	117
—— radicans	1841	66	167
—— corymbiflora	1840	70	202
—— splendens	1842	67	..

		pl.	misc.
Fuchsia Standish's	1840	2	..
Funkia Sieboldi	1839	50	..
Galbanum	1839	..	107
Galeandra Baueri	1840	49	..
—— cristata	1844	..	69
Gardoquia betonicoides	1838	..	159
Garrya laurifolia	1840	..	53
Gaylussacia Pseudo-vaccinium	1842	62	..
Genista bracteolata	1840	23	..
—— virgata	1844	11	..
Geranium rubifolium	1840	67	..
—— erianthum	1841	..	91
—— ——	1842	52	..
—— tuberosum	1839	10	..
Gesneria reflexa	1840	..	39
—— Suttoni, white var.	1842	..	40
—— longifolia	1841	..	190
—— ——	1842	40	..
—— discolor	1841	63	96
—— Zebrina	1842	16	..
Gladiolus crispiflorus	1842	..	81
—— caucasicus	1842	..	82
—— æquinoctialis	1842	..	97
—— festivus	1844	..	87
—— oppositiflorus	1842	..	98
—— splendens	1843	..	61
Glaucium rubrum	1839	..	78
Glossocomia ovata	1842	3	..
Gloxinia speciosa	1844	48	..
Glumosia	1843	..	139
Godetia albescens	1841	..	131
—— ——	1842	9	..
—— grandiflora	1841	..	132
—— ——	1842	61	..
Gompholobium versicolor	1839	43	62
Gonatanthus sarmentosus	1841	..	83
Gongora fulva	1839	51	..
—— bufonia	1841	2	..
—— vitellina	1841	..	4
—— maculata	1841	..	101
—— maculata var tricolor	1844	..	30
—— nigrita	1839	..	86
—— truncata	1843	..	52
Goodyera rubicunda	1839	..	92
Govenia Gardneri	1839	..	51
—— lagenophora	1839	..	66
—— liliacea	1838	13	..
—— fasciata	1843	..	107
Grammatophyllum multiflorum	1838	..	80
——	1839	65	..
—— var. tigrinum	1842	69	..
Grevillea Thielemanniana	1839	..	72
Grobya galeata	1840	..	197
Guaiacum officinale	1839	9	..
Gunnia picta	1838	..	77
Habenaria candida	1844	..	77
Habranthus pratensis	1842	35	..
—— nobilis	1844	..	84
Habrothamnus fasciculatus	1843	..	73
—— purpureus	1844	43	19
—— cyaneus	1844	..	68
Hæmanthus magnificus	1841	..	153
Hakea ruscifolia	1841	..	158
Hardenbergia digitata	1840	60	142

		pl.	misc.
Hartwegia purpurea	1840	..	96
——— ——— var. angustifolia	1843	..	58
Heimia salicifolia	1841	60	..
Helichrysum scorpioides	1838	..	84
Helleborus lividus	1843	55	..
——— orientalis	1841	..	112
——— ———	1842	34	..
——— olympicus	1841	..	113
——— ———	1842	58	..
Hemiandra emarginata	1841	..	156
Herbertia Drummondiana	1842	..	83
Heteropteris undulata	1841	..	48
Hexadesmia fasciculata	1842	..	46
——— ———	1843	..	21
——— bicornis	1844	..	44
——— micrantha	1844	..	5
Hexopia crucigera	1840	..	90
——— ———	1844	..	4
Hibbertia perfoliata	1841	..	94
——— ———	1843	..	64
Hibiscus Cameroni	1840	..	31
——— Cameroni fulgens	1844	28	..
——— Wrayæ	1840	69	149
Higginsia mexicana	1841	..	137
Hindsia violacea	1844	40	43
Hippeastrum organense, *var.* compressum	1842	..	35
Hoitzia mexicana	1838	..	21
Hormidium	1839	..	13
Hoteia japonica	1839	..	133
Houlletia vittata	1841	69	100
Hovea crispa	1839	..	19
——— pungens	1839	..	28
——— Manglesii	1838	62	..
——— racemulosa	1842	..	36
——— ———	1843	4	..
——— ilicifolia	1844	58	.
Hoya coriacea	1839	18	..
——— ———	1840	..	1
Huntleya Meleagris	1838	..	20
——— ———	1839	14	..
——— violacea	1839	..	17
Hydrangea japonica	1844	61	..
Hydromestus maculatus	1843	..	46
Hydrotænia Meleagris	1838	..	128
——— ———	1842	39	..
——— lobata	1844	..	63
Hymenocallis Harrisiana	1840	..	63
——— bistubata	1844	..	53
——— panamensis	1841	..	146
——— rotata	1840	..	55
——— Skinneriana	1843	..	59
Hypocalymna robustum	1843	8	..
——— augustifolium	1843	..	78
——— suavis	1844	..	32
Impatiens candida	1840	..	204
——— ———	1841	20	..
——— rosea	1841	27	22
——— glanduligera	1840	22	..
——— macrochila	1840	8	..
——— tricornis	1840	9	..
Indigofera Dosua	1842	57	..
——— stachyodes	1843	14	..
Inga Harrisii	1839	41	..
Ionopsis teres	1838	..	181
Ipomœa ficifolia	1840	..	221

		pl.	misc.
Ipomœa ficifolia	1841	12	..
——— cymosa	1843	24	..
——— longifolia	1839	..	124
——— ———	1840	21	..
——— batatoides	1841	36	23
——— pendula	1840	..	201
——— Purga	1839	..	136
——— tyrianthina	1838	..	162
——— Schiedeana	1838	..	22
Iris deflexa	1840	..	42
——— ———	1840	..	62
——— fragrans	1840	1	..
Ismene deflexa	1839	..	142
——— virescens	1841	12	..
Isochilus lividum	1839	..	45
——— grandiflorum	1841	1	..
——— graminifolium	1841	1	..
Isopogon roseus	1842	..	37
Isotropis striata	1839	..	61
Ixiolirion montanum	1844	66	..
Jasminum caudatum	1842	36	..
——— subulatum	1842	..	58
Juniperus tetragona	1839	..	102
——— flaccida	1839	..	103
——— mexicana	1839	..	104
——— squamosa	1839	..	189
Lælia furfuracea	1839	26	..
——— autumnalis	1829	27	..
——— albida	1839	54	4
——— ———	1843	..	16
——— flava	1839	..	143
——— ———	1842	62	..
——— majalis	1839	..	42
——— ———	1844	30	..
——— caulescens	1841	1	..
——— acuminata	1841	24	42
——— peduncularis	1842	..	10
——— superbiens	1840	..	87
——— rubescens	1840	41	25
——— virens	1844	..	2
Lacæna bicolor	1843	..	101
——— ———	1844	50	..
Lalage hoveæfolia	1841	..	75
Lathyrus Armitageanus	1840	..	14
Lavatera maritima	1838	..	140
Lemonia spectabilis	1840	59	..
Leochilus carinatus	1842	..	22
——— cochlearis	1842	..	22
——— herbaceus	1844	..	90
——— oncidioides	1842	..	22
——— sanguinolentus	1844	..	91
Leptodermis lanceolata	1839	..	131
Leschenaultia biloba	1842	2	..
Leycesteria formosa	1839	2	..
Lilium testaceum	1842	..	51
——— ———	1843	11	..
——— Thunbergianum	1839	38	..
Linaria delphinioides	1840	..	15
——— glandulifera	1841	..	51
——— venosa	1841	..	151
Lindenia rivalis	1841	..	130
Lindleya mespiloides	1843	..	83
——— ———	1844	27	..
Liparis pendula	1838	..	180
——— alata	1843	..	12
——— spathulata	1840	..	189
Lissanthe stellata	1840	..	2
——— ———	1840	..	13

		pl.	misc.
Lissanthe verticillata	1840	..	26
Lissochilus parviflorus	1838	..	14
——— roseus	1843	..	37
——— ———	1844	12	..
Loasa lateritia	1838	22	..
Lobelia discolor	1840	..	211
——— pyramidalis	1841	..	170
——— subnuda	1840	..	211
——— fenestralis	1838	47	..
——— multiflora	1840	..	17
Lonicera diversifolia	1843	..	118
——— ———	1844	33	..
Lopezia lineata	1840	40	60
Luisia alpina	1838	..	101
Lupinus arboreus	1838	32	..
——— arvensis	1844	1	..
——— Hartwegii	1839	31	..
——— Barkeri	1839	56	..
——— bilineatus (note)	1839	56	..
——— mexicanus (note)	1839	56	..
——— leptocarpus	1840	38	..
Lycaste plana	1842	..	96
——— ———	1843	35	..
——— Barringtoniæ	1844	..	51
——— ——— crinita	1844	..	41
——— aromatica var. retusa	1844	..	47
——— gigantea	1844	..	48
——— tetragona	1843	..	64
Lysimachia lobelioides	1841	..	150
——— ———	1842	6	..
——— spuria	1843	..	133
Macleania longiflora	1844	25	..
Macradenia mutica	1839	..	22
Malachadenia clavata	1839	..	110
Malaxis Parthoni	1840	..	214
Malva lucida	1839	..	130
——— mauritiana	1839	..	82
Mandevilla sauveolens	1840	7	..
Manglesia glabrata	1840	..	27
Marcetia excoriata	1843	31	..
Marianthus cœruleopunctatus	1841	..	15
Marlea begonifolia	1838	61	..
Martynia fragrans	1840	..	206
——— ———	1841	6	..
Masdevallia infracta	1838	..	64
——— floribunda	1843	..	112
——— cuprea	1843	..	125
Matthiola odoratissima	1839	25	..
——— maderensis	1841	..	97
Maxillaria Colleyi	1838	..	161
——— cruenta	1842	13	..
——— Rollissonii	1838	40	..
——— galeata	1843	..	13
——— aromatica	1842	13	..
——— vitellina	1838	..	116
——— ———	1839	12	..
——— porrecta	1838	..	173
——— macrophylla	1838	..	174
——— ———	1840	..	191
——— bractescens	1842	..	92
——— concava	1844	..	12
——— corrugata	1844	..	14
——— costata	1838	..	175
——— variabilis	1838	..	92
——— Brockelhurstiana	1841	..	28
——— candida	1841	..	59
——— Harrisoniæ	1841	..	168
——— placanthera	1841	..	103
Maxillaria jugosa	1841	..	104
——— barbata	1841	..	141
——— purpurascens	1841	..	142
——— madida	1838	..	74
——— Boothiana	1838	..	95
——— tenuifolia	1839	8	..
——— stapelioides	1839	17	..
——— xanthina (note)	1839	17	..
——— foveata	1839	..	2
——— acutifolia	1839	..	148
——— acutipetala	1843	..	36
——— lentiginosa	1839	..	93
——— aureofulva	1840	..	43
——— stenopetala	1840	..	43
——— scabrilinguis	1844	..	66
——— cucullata	1840	12	..
——— rhombea	1840	12	..
——— Macleei	1840	..	155
——— Meleagris	1844	..	9
——— Skinneri	1840	..	101
——— ———	1840	..	145
——— ———	1842	..	13
——— rugosa	1843	..	121
Medicago clypeata	1839	..	90
Medinilla erythrophylla	1838	..	158
Megaclinium oxypterum	1839	..	10
——— Bufo	1841	..	82
Microstylis excavata	1838	..	93
——— histionantha	1840	..	214
——— caulescens	1841	1	..
Miltonia candida	1838	..	29
——— ——— *var.* grandiflora	1843	..	110
——— cuneata	1844	..	28
Mimosa marginata	1838	..	152
——— uruguensis	1842	33	..
Mina lobata	1842	..	9
——— ———	1842	24	..
Mirbelia speciosa	1841	58	..
Morina longifolia	1840	36	..
Mormodes buccinator	1840	..	9
——— buccinator, var.	1841	..	191
——— pardinum	1838	..	176
——— ———	1839	..	7
——— lineatum	1841	..	107
——— ———	1842	43	..
——— luxatum	1842	..	66
——— ———	1843	33	..
——— aromaticum	1841	..	162
——— ———	1843	56	..
Morna nivea	1838	9	..
Morrenia odorata	1838	..	129
Mucuna pruriens	1838	18	..
Napoleona imperialis	1844	..	81
Narcissi	1843	38	..
Narcissus montanus	1844	..	35
Mycaranthes obliqua	1840	..	184
Nelumbium Caspicum	1844	14	..
Myoporum ascendens	1844	..	50
Nemaconia gracilifolia	1839	..	15
Nemesia floribunda	1838	39	..
Nepeta salviæfolia	1839	..	123
Nicotiana rotundifolia	1838	..	110
Niphæa oblonga	1841	..	172
——— ———	1842	5	..
Notylia punctata	1838	..	166
——— pubescens	1842	..	72
——— aromatica	1841	..	77

		pl.	misc.
Notylia incurva	1838	..	167
—— Barkeri	1838	..	168
—— tenuis	1838	..	169
—— micrantha	1838	..	170
Oberonia cylindrica	1840	..	23
—— miniata	1843	..	8
—— recurva	1839	..	8
—— Wightiana	1839	..	9
Octomeria gracilis	1838	..	55
—— grandiflora	1842	..	80
—— diaphana	1839	..	145
—— tridentata	1839	..	43
Odontoglossum Bictoniense	1840	66	..
—— constrictum	1843	..	25
—— stellatum	1841	..	25
—— Ehrenbergii	1841	..	85
—— pulchellum	1841	48	..
—— Clowesii	1839	..	153
—— læve	1844	39	..
—— citrosmum	1842	..	68
—— ——	1843	3	..
—— cordatum	1838	..	90
—— grande	1840	..	94
—— maculatum	1840	30	..
—— Rossii	1839	48	..
—— ——	1843	..	19
Œnothera fruticosa indica	1841	11	..
Olinia capensis	1840	..	212
—— acuminata	1841	..	135
—— cymosa	1841	..	136
Oncidium tetrapetalum	1838	..	56
—— candidum	1843	..	76
—— brachyphyllum	1842	4	.
—— confragosum	1838	..	92
—— cuneatum	1843	..	15
—— ascendens	1842	4	..
—— pulvinatum	1838	..	115
—— ——	1839	42	..
—— Forkelii	1843	..	14
—— Cebolleta	1842	4	..
—— pergameneum	1842	..	7
—— hians	1838	..	124
—— bicolor	1843	66	..
—— raniferum	1838	48	..
—— longifolium	1842	4	..
—— luridum guttatum	1839	16	..
—— Suttoni	1842	..	8
—— trulliferum	1839	57	..
—— bicallosum	1842	..	14
—— ——	1843	12	..
—— Forbesii	1839	..	149
—— ensatum	1842	..	15
—— excavatum	1839	..	150
—— sphacelatum	1842	30	..
—— sphegiferum	1843	..	23
—— spilopterum	1844	..	76
—— sanguineum	1839	..	68
—— nanum	1842	..	30
—— unicorne	1839	..	76
—— uniflorum	1843	43	..
—— urophyllum	1842	54	..
—— carinatum	1840	..	45
—— intermedium	1840	..	46
—— barbatum	1842	..	74
—— unicornutum	1840	..	47
—— Carthaginense	1840	..	215
—— pelicanum	1840	..	216
—— macrantherum	1841	..	33

		pl.	misc.
Oncidium Wrayæ	1841	..	57
—— monoceras	1841	..	160
—— Barkeri	1841	..	174
—— nebulosum	1841	..	175
—— Huntianum	1840	..	137
—— pachyphyllum	1840	..	138
—— Insleayi	1840	..	21
—— incurvum	1840	..	174
—— lacerum	1844	..	38
—— leucochilum	1840	..	79
—— ornithorhynchum	1840	10	95
—— oblongatum	1844	..	11
—— ampliatum	1840	..	97
—— microchilum	1840	..	193
—— ——	1843	23	..
—— Wentworthianum	1840	..	194
—— pallidum	1840	..	108
—— ramosum	1840	..	154
—— suave	1843	..	22
—— stramineum	1840	14	..
—— ——	1838	..	63
Ophelia purpurascens	1840	..	158
Opoidia galbanifera	1839	..	107
Ornithogalum geminiflorum	1838	..	100
—— divaricatum	1841	..	111
—— ——	1842	28	..
—— montanum	1838	28	..
Osbeckia stellata, var.	1844	55	..
Oxalis Darvalliana	1840	..	11
—— Ottonis	1840	..	213
—— fruticosa	1841	41	..
—— rubrocincta	1842	64	..
Oxyanthus versicolor	1840	..	150
Oxylobium capitatum	1841	..	80
—— ——	1843	16	..
—— obovatum	1843	36	49
Pæonia (Onæpia) Brownii	1839	30	..
Panætia fulva	1838	..	83
Papaver amoenum	1839	..	80
Passiflora hispidula	1840	..	3
—— ——	1840	..	16
—— onychina	1838	21	1
—— verrucifera	1840	52	105
Patersonia sapphirina	1839	60	..
Paxtonia rosea	1838	60	113
Pedicularis megalantha	1842	..	57
—— pyramidata	1841	..	155
Pentas carnea	1844	32	..
Pentlandia miniata	1839	68	..
Pentstemon barbatum carneum	1839	21	..
—— crassifolium	1838	16	..
—— gentianoides	1838	3	..
Peristeria guttata	1840	..	33
—— Humboldti	1843	18	..
Peristylus goodyeroides	1840	..	187
Pernettya angustifolia	1840	63	..
Pesomeria tetragona	1838	..	6
Phacelia fimbriata	1841	..	126
Phaius grandifolius	1839	..	40
—— bicolor	1839	..	91
—— Wallichii	1839	..	58
—— albus	1838	33	..
Phalænopsis amabilis	1838	34	..
Pharbitis Learii	1841	56	..
—— ostrina	1842	51	..
Philadelphus hirsutus	1838	14	..
—— Gordonianus	1838	..	23

		pl.	misc.
Philadelphus Gordonianus	1839	32	..
—— triflorus	1838	..	51
—— laxus	1839	39	..
—— mexicanus	1840	..	70
—— ——	1841	..	118
—— ——	1842	38	..
Philibertia grandiflora	1843	13	..
Phlomis simplex	1841	..	102
—— Cashmeriana	1844	22	..
Phlox Van Houtte's	1843	5	..
Pholidota articulata	1839	..	57
—— undulata	1841	.	19
—— conchoidea	1840	..	108
Phycella biflora	1838	..	72
—— obtusa	1844	..	93
Physinga prostrata	1838	..	45
Physosiphon carinatus	1838	..	132
Physurus pictus	1844	..	61
Picris asperrima	1838	..	108
—— barbarorum	1838	..	107
Pieris ovalifolia	1842	..	50
Pilumna laxa	1844	..	74
Pimelia incana	1838	24	..
—— crinita	1838	..	109
—— spectabilis	1841	33	18
—— prostrata	1839	..	81
Pinus oocarpa	1839	..	23
—— Llaveana	1839	..	24
—— Hartwegii	1839	..	95
—— Devoniana	1839	..	96
—— Russelliana	1839	..	97
—— macrophylla	1839	..	98
—— pseudostrobus	1839	..	99
—— apulcensis	1839	..	100
—— filifolia	1840	..	132
—— Coulteri	1840	..	133
Pisonia Olfersiana	1841	..	34
Pitcairnia undulata	1843	..	44
—— micrantha	1843	..	57
Pittosporum bicolor	1843	..	27
Placea ornata	1841	50	..
Plagianthus Lampenii	1838	..	25
Plautia flava	1844	..	88
Pleurothallis circumplexa	1838	..	27
—— marginata	1838	..	70
—— aphthosa	1838	..	71
—— vittata	1838	..	133
—— ophiocephala	1838	..	48
—— stenopetala	1838	..	182
—— muscoidea	1838	..	165
—— pectinata	1839	..	1
—— recurva	1841	..	1
—— luteola	1841	..	2
—— picta	1841	..	182
—— gelida	1841	..	186
—— sicaria	1841	..	187
—— fragilis	1841	..	188
—— fœtens	1843	..	7
—— peduncularis	1841	..	64
—— ——	1843	..	62
—— breviflora	1841	..	125
—— strupifolia	1839	..	3
—— bicarinata	1839	..	11
—— scabripes	1839	..	155
—— pachyglossa	1840	..	146
—— seriata	1840	..	175
—— Smithiana	1843	..	79

		pl.	misc.
Pleurothallis villosa	1840	..	40
—— ciliata	1840	..	41
Podolepis contorta	1838	..	120
Podolobium berberifolium	1841	..	89
Pogonia plicata	1841	..	129
Polemonium cœruleum grandiflorum	1840	..	76
Polygonum amplexicaule	1838	..	117
—— ——	1839	46	..
—— molle	1841	..	66
Polystachya zeylanica	1838	..	144
—— clavata	1842	..	71
—— ramulosa	1838	..	142
—— luteola	1838	..	143
—— reflexa	1841	..	43
—— bracteosa	1840	..	102
—— cerea	1840	..	208
Ponera graminifolia	1839	..	15
—— ——	1842	..	17
—— juncifolia	1842	..	17
—— striata	1842	..	17
Populus balsamifera	1843	..	29
—— tristis	1843	..	30
—— longifolia	1843	..	31
—— candicans	1843	..	32
—— pseudo balsamifera	1843	..	33
—— laurifolia	1843	..	34
—— suaveolens	1843	..	35
Portulaca Thellusonii	1839	..	114
—— ——	1840	31	..
—— splendens	1843	34	..
Posoqueria versicolor	1841	26	..
Potentilla insignis	1841	37	..
Pothos podophyllus	1841	..	176
Primula denticulata	1842	47	..
Pronaya elegans	1840	..	200
Protea longiflora	1841	..	136
Psithyrisma	1843	..	135
Psoralea obcordata	1838	..	57
—— brachytropis	1841	..	76
Puya Altensteinii	1840	..	210
—— cœrulea	1840	11	..
—— heterophylla	1840	71	..
—— recurvata	1843	..	43
Quekettia microscopica	1839	..	6
Quercus acutifolia	1840	..	160
—— reticulata	1840	..	161
—— crassipes	1840	..	162
—— spicata	1840	..	163
—— mexicana	1840	..	164
—— glaucescens	1840	..	165
—— sideroxyla	1840	..	166
—— lancifolia	1840	..	167
—— petiolaris	1840	..	168
—— mannifera	1840	..	72
—— regia	1840	..	73
—— Brantii	1840	..	74
Quisqualis sinensis	1844	15	..
Randia oxypetala	1843	..	92
Renanthera matutina	1843	41	3
Rhododendron Rollissonii	1843	25	..
—— Aprilis	1843	62	..
Rhodorhiza	1841	..	152
Rhodostoma gardenioides	1843	..	47
Ribes Menziesii	1838	..	52
Rigidella flammea	1840	16	64
—— immaculata	1841	68	133

		pl.	misc.
Rivea tiliæfolia	1841	..	29
Rodriguezia crispa	1840	54	..
—— ——	1839	..	139
—— carnea	1843	..	113
—— laxiflora	1839	..	138
—— maculata	1840	..	218
Roepera aurantiaca	1838	..	105
Rondeletia longiflora	1843	42	..
Roscöea purpurea	1840	61	..
—— lutea	1841	..	159
Saccolabium gemmatum	1838	..	88
—— densiflorum	1838	..	103
—— Blumei	1841	..	115
—— calceolare	1838	..	139
—— bifidum	1838	..	5
—— compressum	1840	..	5
—— micranthum	1839	..	52
—— ochraceum	1842	..	4
Salvia Moorcroftii	1839	..	127
—— patens	1839	23	48
—— excelsa	1841	..	185
—— tubiformis	1841	44	40
—— confertiflora	1839	29	..
—— canescens	1838	36	..
—— hians	1840	..	115
—— ——	1841	39	..
—— prunelloides	1840	..	207
—— Regla	1840	..	205
—— ——	1841	14	..
Saponaria perfoliata	1839	..	83
Sarcanthus filiformis	1842	..	69
—— pallidus	1840	..	185
—— oxyphyllus	1840	..	123
Sarcochilus olivaceus	1839	..	27
—— parviflorus	1838	..	50
—— unguiculatus	1840	..	143
Satyrium papillosum	1838	..	154
—— carneum	1838	..	155
—— candidum	1838	..	153
—— pustulatum	1840	18	..
Saussurea pulchella	1842	18	..
Saxifraga ciliata	1843	65	..
Scaphyglottis reflexa	1839	..	21
—— stellata	1839	..	60
Scelochilus Ottonis	1842	..	23
Schizanthus candidus	1843	..	45
Schizonotus tomentosus	1840	..	156
Schomburgkia marginata	1839	..	12
—— tibicinis	1841	..	119
—— undulata	1844	..	21
—— crispa	1844	23	..
Schubertia graveolens	1838	..	2
Schweiggeria pauciflora	1841	40	..
Scilla pratensis	1839	63	..
—— Peruviana, var. discolor	1843	48	..
Scleroon oleinum	1843	..	98
Scutellaria splendens	1841	..	139
Sedum miserum	1838	..	122
—— multicaule	1840	..	124
Senecio populifolius, lacteus	1839	45	..
—— cruentus	1839	7	..
—— odoratus	1839	..	111
Severinia brevifolia	1841	..	52
Sieversia elata	1842	..	54
Sisyrinchium junceum	1840	..	12
—— majale	1841	..	37
Sobralia macrantha	1842	..	65
Sobralia sessilis	1841	17	11
Solanum betaceum	1840	..	65
—— ——	1840	..	61
—— candidum	1839	..	125
—— concavum	1842	..	60
—— macrantherum	1840	..	181
—— ——	1841	7	..
—— Rossii	1840	..	34
—— uncinellum	1840	15	..
—— vernicatum	1838	..	137
Sollya linearis	1839	..	132
—— ——	1840	3	..
Sophronitis violacea	1840	..	18
Sowerbæa laxiflora	1841	10	..
Spathoglottis plicata	1844	..	58
Specklinia orbicularis	1838	..	41
—— ciliaris	1838	..	40
—— obovata	1839	..	137
Sphærolobium acuminatum	1843	..	77
Spiræa barbata	1838	..	65
—— fissa	1842	..	1
—— Kamschatica	1841	4	..
—— lanceolata	1841	..	93
—— cuneifolia	1839	..	87
—— vacciniifolia	1839	..	88
—— ——	1840	17	..
—— Reevesiana	1844	10	..
—— rotundifolia	1840	..	159
—— laxiflora	1839	..	89
—— fissa	1840	..	170
Spiranthes cerina	1842	..	19
—— diaphana	1844	..	20
—— diuretica	1838	..	119
—— Lindleyana	1841	..	38
—— lobata	1844	..	17
—— rosulata	1843	..	84
Spironema fragrans	1840	47	48
Sprekelia cybister	1840	33	..
—— glauca	1840	..	104
—— ——	18S1	16	..
Stanhopea quadricornis	1838	5	..
—— Lindleyi	1838	..	4
—— aurea	1841	..	31
—— tigrina	1839	1	..
—— oculata	1839	..	113
—— ——	1840	..	80
—— graveolens	1840	..	125
—— guttulata	1843	..	116
—— maculosa	1840	..	28
—— Martiana	1840	..	109
—— ——	1841	..	147
—— —— var. bicolor	1843	44	8
—— Wardii	1840	..	147
Statice arborea	1839	6	..
—— pectinata	1840	65	..
—— monopetala	1841	54	..
—— —— var. denudata	1842	59	..
Stelis argentata	1842	..	78
—— crassifolia	1842	..	12
—— atropurpurea	1842	..	100
—— tristyla	1838	..	69
Stenia pallida	1838	20	..
Stenochilus longifolius	1839	..	115
—— incanus	1839	..	116
Stenomesson eustephioides	1843	..	91
—— Hartwegii	1844	42	..
—— vitellinum	1843	2	..
—— aurantiacum	1843	..	90

		pl.	misc.
Stenomesson aurantiacum	1844	..	26
Stenocoryne longicornis .	1843	..	68
Stevia fascicularis . .	1838	59	..
Stigmaphyllon ciliatum .	1841	..	121
——— jatrophæfolium	1843	..	80
——— ——— .	1844	7	..
Strobilanthes scabra .	1841	32	..
Stylidium proliferum .	1841	..	78
——— pilosum . .	1841	..	79
——— ——— . .	1842	41	..
——— Brunonianum .	1841	..	95
——— ——— .	1842	15	..
Tabernæmontana dichotoma	1841	53	..
Talinum teretifolium . .	1843	1	..
Tanacetum longifolium .	1840	..	78
Tetranema mexicanum .	1843	52	..
Thalictrum cultratum .	1840	..	77
Thomasia canescens .	1840	..	203
Thuja filiformis . .	1842	20	..
Thysanotus intricatus .	1838	..	111
——— ——— .	1840	4	..
——— tenuis . .	1838	50	..
——— proliferus .	1838	8	..
——— isantherus .	1839	..	75
Tigridia violacea . .	1841	..	134
Tillandsia Gardneri . .	1842	63	..
——— rubida . .	1842	63	..
Tradescantia iridescens .	1840	34	160
——— tumida .	1840	42	..
Tremandra Hugelii . .	1844	67	..
Trichinium alopecuroideum	1839	28	..
——— Manglesii (note)	1839	28	.
——— Stirlingii (note)	1839	28	..
Trichocentron iridifolium	1838	..	178
——— recurvum .	1843	..	17
——— candidum .	1843	..	18
Trichonema edule . .	1842	..	99
Trichosma suavis . .	1842	21	..
Trifolium involucratum .	1840	..	116
Trigonidium acuminatum .	1838	..	136
——— Egertonianum	1838	..	135
——— ———	1840	..	100
——— ringens .	1840	..	121
——— tenue . .	1839	..	59
Trimezia meridensis . .	1844	..	85

		pl.	misc.
Triptilion spinosum . .	1840	..	129
——— ——— . .	1841	22	..
Triteleia aurea . .	1841	..	161
Tritonia fucata . .	1838	35	..
Trochetia grandiflora .	1844	..	10
——— ——— .	1844	21	..
Trollius acaulis . .	1842	..	56
——— ——— . .	1843	32	..
Tropæolum azureum .	1842	65	..
Trymalium odoratissimum	1838	..	30
Tulipa Gesneriana . .	1838	46	..
——— humilis . .	1844	..	39
——— maleolens . .	1839	66	..
Turræa lobata . .	1843	..	86
——— ——— . .	1844	4	..
Urceolina pendula . .	1838	..	151
Valeriana Napus . .	1840	..	180
Van Houtte's Phlox . .	1843	5	..
Vanilla bicolor . .	1838	..	58
——— Palmarum . .	1842	..	75
Vanda congesta . .	1839	..	94
——— cristata . .	1842	48	..
——— teres . . .	1842	..	25
——— furva . . .	1844	..	42
——— parviflora . .	1844	..	57
——— violacea . .	1841	..	32
——— lamellata . .	1838	..	125
Veronica diosmæfolia .	1840	..	30
——— formosa . .	1839	..	85
——— nivea . .	1842	..	43
Verticordia densiflora .	1843	..	106
Victoria regia . . .	1838	..	13
Viscaria oculata . .	1843	53	..
Vriseia psittacina . .	1843	10	..
Warrea cyanea . . .	1844	..	3
——— bidentata . .	1844	..	78
Weinmannia venosa . .	1840	..	36
Xerotes longifolia . .	1839	3	..
Zichya tricolor . . .	1839	52	..
——— angustifolia (note)	1839	52	..
——— villosa . .	1841	..	81
——— ——— . . .	1842	68	..
Zigadenus glaucus . .	1838	67	..
Zygopetalum africanum .	1840	..	139
——— Mackaii .	1844	..	15

PART II.—GENERAL INTELLIGENCE, AND ENUMERATIONS OF SPECIES.

Acineta Humboldtii, 1843, *misc. p.* 68.

——— Barkeri, 1843, *misc. p.* 68.

Agardh, Recensio generis Pteridis, noticed, 1840, *misc. p.* 13.

Albumen, remarks on, by Drs. Schleiden and Vogel, 1842, *misc. p.* 45.

Alona, sp. described, 1844, *t.* 46.

Amelanchier canadensis, 1842, *misc. p.* 16.

American Quackery, 1842, *misc. p.* 16.

Amianthium muscætoxicum, 1842, *misc. p.* 14.

Ansellia africana, 1844, *t.* 12.

Astilbe decandra, 1842, *misc. p.* 16.

Bæckea, its structure, 1842, *t.* 10.

Balsamineæ, their affinities and structure, 1840, *t.* 8.

Balsam Poplars, 1843, *misc. p.* 20.

Bauer, his sale, 1841, *misc. p.* 35.

Beet Root, observations on, by M. Decaisne, 1839, *misc. p.* 28.

Bifrenaria, sp. described, 1843, *misc. p.* 51.

Boykinia aconitifolia, 1842, *misc. p.* 13.

Brassia, sp. described, 1844, *misc. p.* 5.

Brown, Robert, a Copley medal awarded to him, 1840, *misc. p.* 3.

Calanthe, sp. described, 1844, *t.* 37.

Campanula, its collecting hairs, 1840, *misc. p.* 54.
Cape of Good Hope, notes on its vegetation, 1832, *misc. p.* 52.
Catasetum, sp. described, 1844, *misc. p.* 31.
Cattleya, sp. described, 1844, *t.* 5.
Circulation of the latex in plants, 1839, *misc. p.* 48.
Cirrhopetalum, sp. described, 1843, *t.* 49.
Clerodendron, sp. noticed, 1844, *t.* 19.
Clestines in plants, 1840, *misc. p.* 13.
Clethra acuminata, 1842, *misc. p.* 13.
Clerodendron, structure of its ovary, 1842, *t.* 7.
Coburgia, species described, 1842, *misc. p.* 52.
Colax, sp. described, 1843, *misc. p.* 50.
Cordage plants, some account of, 1839, *misc. p.* 5.
Crocuses, described, 1843, *misc. p.* 26.
——— autumnal kinds, 1844, *t.* 3.
Cunningham, Allan, his death, 1840, *misc. p.* 1.
Cyclamens, Europeans, described, 1842, *misc. p.* 26.
Dendrobium, sp. described, 1843, *t.* 28.
——— arranged in groups, 1844, *misc. p.* 47.
Dietrich, Synopsis Plantarum seu Enumeratio Systematica, &c, 1842, *misc. p.* 7.
Diphylleia cymosa, 1842, *misc. p.* 13.
Encyclia, characters of, 1842, *misc. p.* 28.
Endlicher's Genera Plantarum, 1839, *misc. p.* 40.
——— Genera Plantarum, noticed, 1840, *misc. p.* 31.
——— theory of vegetable fertilization, 1839, *misc. p.* 4.
——— Enchiridion Botanicum, 1841, *misc. p.* 85.
Epidendrum, 1842, *misc. p.* 27.
——— section of, named Spathium, 1844, *misc. p.* 82.
——— sp. described, 1842, *t.* 50.
Eria, sp. described, 1844, *t.* 29.
—— section of, named Amphiglottium, 1844. *misc. p.* 14.
Extracarpellary attachment of seeds, 1841, *misc. p.* 25.
Flora de Filipinas, Blanco's, 1839, *misc. p.* 75.
Frankincense tree of Sierra Leone, 1839, *misc. p.* 30.
Frozen Potatoes, 1839, *misc. p.* 12.
Gentianaceæ, Grisebach's Monograph of, 1839, *misc. p.* 57.
Geum radiatum, 1842, *misc. p.* 15.
Glycine sinensis, 1840, *misc. p.* 41.
Gray's Notes of a botanical excursion to the mountains of N. Carolina, 1842, *misc. p.* 11.
Guatemala Orchidaceæ, 1840, *misc. p.* 43.
Gum, its motion in plants, 1840, *misc. p.* 14.
Hair-like roots of Cotyledon cristatum, 1839, *misc. p.* 84.
Hedyotis serpyllifolia, 1842, *misc. p.* 12.
Heuchera villosa, 1842, *misc. p.* 11.
Horse-chesnuts, poisonous, 1839, *misc. p.* 23.
Horticultural Society's Garden, 1839, *miscl. p.* 17.
Hymenocallis and Pancratium, the distinction between, 1840, *misc. p.* 12.
Koordistan oaks, 1841, *misc. p.* 24.
Kunth, Enumeratio plantarum, Vol. III. 1842, *misc. p.* 6.
Lantana, list of sp. of, 1843, *misc. p.* 53.
Lælia, sp. described, 1842, *t.* 62.
Ledebour's Flora Rossica, 1842, *misc. p.* 6.
Leiophylla, 1842, *misc. p.* 15.
Link, Klotzsch, and Otto, Icones plantarum, 1840, *misc. p.* 87.
Leptotes bicolor, its fruit aromatic, 1840, *misc. p.* 14.
Lomandra, note upon, 1839, *sub t.* 3.
Lycaste, sp. described, 1843, *misc. p.* 15.
Magnolia Fraseri, 1842, *misc. p.* 12.
Maxillaria, genus defined, 1843, *misc. p.* 10.
Monstrum Planti, 1843, *misc. p.* 1.
Mormodes, sp. described, 1843, *t.* 33.
Moquin Tandon, Chenopodearum Monographica enumeratio, 1840, *misc. p.* 78.
Myrtle, derivation of the name, 1839, *misc. p.* 28.
Nolana, division of the genus, 1844, *t.* 46.
Oaks of Koordistan, 1840, *misc. p.* 39.
Orchidaceæ of Brazil, their habits, 1839, *misc. p.* 42, 21.
——— of Australia, Cunningham's notes on, 1843, *t.* 37.
——— of Guatemala, 1840, *misc. p.* 43.
Oxycoccus erectus, 1842, *misc. p.* 16.
Pancratium and Hymenocallis, the distinction between, 1840, *misc. p.* 12.
Paphinia cristata, 1843, *misc. p.* 14.
Peristeria, 1843, *misc. p.* 66.
——— sp. described, 1843, *misc. p.* 67.
Perrine on acclimatising tropical plants in the United States, 1839, *misc. p.* 5.
Physostegia virginiana, its catalepsy explained, 1840, *misc. p.* 31.
Pinetum Woburnense, 1830, *misc. p.* 23.
Pisonai tree, 1839, *misc. p.* 18.
Plant's Vegetable Monster, 1843, *misc. p.* 1.
Pleurothallis, sp. described, 1842, *misc. p.* 67.
Pollen covered with starch, 1839, *misc. p.* 74.
Primary distribution of the Vegetable Kingdom, 1839, *misc. p.* 76.
Proceedings of the Royal Asiatic Society, 1839, *misc. p.* 24.
Promenæa, sp. described, 1843, *misc. p.* 13.
Pyrularia oleifera, 1842, *misc. p.* 13.
Ribes, list of hardy sp. 1843, *misc. p.* 37.
Royle's Illustrations of the Botany, &c. of the Himalayas, 1839, *misc. p.* 26.
Salep roots, their anatomy, 1841, *misc. p.* 16.
Schauer, Chamælaucieæ, 1841, *misc. p.* 88.
Schomburgkia, sp. described, 1844, *t.* 24.
Sarcoglottis, sp. described, 1843, *misc. p.* 35.
Scuticaria Steelii, 1843, *misc. p.* 14.
Schizanthus, sp. described, 1843, *t.* 45.
Seeds, extracarpellary attachment, 1840, *misc. p.* 25.
Siebold's Flora Japonica, noticed, 1840, *misc. p.* 4.

Solidago glomerata, 1842, *misc. p.* 15.
Stanhopea, sp. described, 1843, *t.* 44.
Starch on the outside of pollen grains, 1839, *misc. p.* 74.
Starch, new view concerning, 1841, *misc. p.* 48.
Tasmannian plants, 1840, *misc. p.* 16.
Torrey and Gray's Flora of North America, 1839, *misc. p.* 42. 2.
———————— 1840, *misc. p.* 79.
———————— 1841, *misc. p.* 74.
Tragacanth, source of the drug, 1840, *misc. p.* 38.
Van Diemen's Land Plants, 1840, *misc. p.* 16.
Vanilla, first produced in England, 1840, *misc. p.* 66.
Victoria regia, note upon, 1840, *misc. p.* 62.
Warrea tricolor, 1843, *misc. p.* 14.
Wight's Illustrations of Indian Botany, 1839, *misc. p.* 29.
Wistaria sinensis, 1840, *misc. p.* 14.
Zygopetalum, sp. described, 1844, *misc. p.* 8.

NORMAN AND SKEEN, PRINTERS, MAIDEN LANE, COVENT GARDEN.

Systematical Index. v. 7.

3.1 Crocus var. 3
5.1 Alona coelestis 46
Habrothamnus purpureus 43
Dipladenia crassinoda 64
Hindsia violacea 40
Pentas carnea 32
Lonicera diversifolia 33
Euonymus japonicus 6
Ceanothus thyrsiflorus 38
Corethrostylis bracteata 47
Cryptandra suavis 56
6.1 Stenomesson Hartwegii 42
Crinum variabile 9
Ixiolirion montanum 66
Berberis pallida 16
—— tenuifolia 26
—— umbellata 44
8.1 Tetratheca hirsuta 67
Pobeckia stellata 55
10.1 [illegible] lobata 43
10.1 Andromeda phillyreaefolia 36
Gaylussacia Pseudovaccinium 62
Arctostaphylos pungens 17
Quisqualis sinensis 15
10.2 Hydrangea japonica 61
10.3 Stigmatophyllum jatrophaefolium 7
12.1 Cereus crenatus 31
11.7 Aeonium Youngianum 35
12.2 Crataegus crenulata 52
Lindleya mespiloides 27
Spiraea Reevesiana 10
13.6 Nelumbium Caspicum 14
Anemone obtusiloba 65
14.1 Phlomis Cashmeriana 22
14.2 Gloxinia speciosa 48
Bignonia Carolinae 54
Chirita sinensis 59
Clerodendrum infortunatum 19
16.2 Astiria rosea 49
16.6 Macleania longiflora 25
Genista virgata 11
16.8 Hibiscus var. 28
16.8 Abutilon vitifolium 57
Trochetia grandiflora 21
16.6 Hovea ilicifolia 58
Lupinus arvensis 1
20.1 Eria floribunda 20
—— bracteescens 29
Bolbophyllum macranthum 13
Dendrobium compressum 53
Epidendrum pterocarpum 34
—— radiatum 45
—— verrucosum 51
Ania bicornis 8
Cattleya pumila 5
Laelia majalis 30
Lacaena bicolor 50
Schomburgkia crispa 23
Cymbidium pendulum 24
Lissochilus roseus 12
Odontoglossum laeve 39
Aerides virens 41
Angraecum pellucidum 2
Calanthe Masuca 37
Anguloa uniflora 60
—— Clowesii 63
Bromheadia palustris 18